

Helpdesk Report: Child to Child approaches

Date: 19 July 2012

Query: To what extent have child-to-child approaches had an impact on improving the quality of education? Have there been any studies including randomised control trials that show the impact on learning outcomes? We know that much of the work is at kindergarten or primary level - are there any programmes that are successfully using child-to-child in Junior High School and beyond? We do not want summaries of the activity based learning (ABL) – but are keen to know the impact of the component of ABL that involves children’s own assessment and monitoring of their own, and other children’s learning. Including whether this increases motivation – and how it impacts on weaker learners or those who have long periods of absenteeism.

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1. Overview

The literature on child-to-child (CtC) approaches in developing countries is mostly related to health education. It was not always clear which age group were being targeted. It was not possible to find details of a randomised-control trial however, there are some relevant evaluation findings in section 2 of the report, including:

- Evidence from Zambia found dramatic improvement in educational outcomes for girls – in CtC classrooms the qualification of participating students for admission to secondary school improved to 74%, with girls accounting for two-thirds of this figure, in contrast to averages of 33% and 29% for two non child-to-child classrooms.
- A controlled study of CtC in Kampala found significantly higher scores for children in self-concept-rated behaviour and significantly fewer days absence from school.
- CtC activities in Nepal led to improvements in overall school attendance and punctuality.
- Qualitative evidence from youths in Kabale who had been involved in CtC classes in the 1990’s who have gone on to achieve in higher education and embark on professional careers.

Evaluations of peer-learning approaches in developed countries (section 3) provide information on secondary-and higher-level education, and on more academic subjects. Findings include:

- Secondary level students in remedial and special education classes improved reading comprehension and reported more positive beliefs about working hard to improve reading with peer-assisted learning strategies.
- Junior high school students in structured cooperating groups demonstrated more cooperative and helping behaviours such as giving more elaborated help and guided directions to assist understanding than their peers in the unstructured groups. They also demonstrated more complex thinking and problem-solving skills.
- Cognitive, affective and social gains observed in science lessons at the end of primary school survived transition to secondary school (Thurston et al).
- A structured programme in the US, *Learning Together*, reports significant increases in reading accuracy and comprehension for tutors and tutees in grades 2-6.

There is a wealth of literature on the benefits of self-assessment. However, nothing specific was found in the context of action-based learning. Findings from a systematic review of secondary literature include:

- Students perform better in exams after self-assessment training
- Positive effects on pupil self-esteem
- Increased engagement with learning, especially goal setting, clarifying objectives, taking responsibility for learning, and/or increased confidence.

A study of 12th Grade students in Oman found that self-assessment:

- led to improvement in students' learning
- encouraged students to participate more openly
- directed students to give more accurate and honest answers
- helped students to direct their own efforts more effectively
- made students more involved and motivated in the learning process

2. Impact of Child-to-Child Approaches

Early Educational Foundations for the Development of Civic Responsibility: An African Experience

Robert Serpell, Paul Mumba, Tamara Chansa-Kabali,

In C. A. Flanagan & B. D. Christens (Eds.), *Youth civic development: Work at the cutting edge. New Directions for Child and Adolescent Development*, 134, 77–93, 2011

http://unza.academia.edu/RobertSerpell/Papers/1275128/Early_Educational_Foundations_for_the_Development_of_Civic_Responsibility_an_African_Experience

This can be download here if the users log in via facebook

Tamara Chansa-Kabali and Robert Serpell, embarked on a long-term follow-up study of young women and men, now in their late twenties, who were enrolled in the programme at Kabale in the 1990s and some of their local contemporaries enrolled in the conventional curriculum at the same school. The goal has been to explore through qualitative analysis of in-depth interviews the longer-term psychological consequences of engagement in CtC activities from fifth to seventh grade. The informants interviewed to date include some whose formal education ended with seventh grade while others went on from secondary to tertiary education and are now embarking on a professional career (including a nurse, two teachers, a religious pastor, a diplomate in journalism, and a diplomate in social work).

One respondent testified: "We used to be in groups, it was very encouraging. I was not good at school work: I got encouraged because at least I had someone by my side to help, and we really had that true spirit in the classroom and everybody was helped . . . We played together, did everything together . . . we lived like a team!"

For some of our respondents who did not go on to tertiary education the long-term benefits of group work in upper primary school included a lasting respect for individuals of lesser academic aptitude as having other complementary strengths, another important resource for adult citizenship.

The CtC approach adopted by Paul Mumba and his colleagues at Kabale Primary School evidently made a profound impact on many of his students. Fourteen years later, they remembered vividly the study group organisation of the class as exciting and empowering. They also retained a clear memory of the philosophical themes of helping others, cooperative learning, and gender equality. Many of those who went on to further education regarded the CtC approach as superior to the more individualistic educational practices they encountered elsewhere. Although this evaluation may reflect the emphasis on collectivist values of traditional African culture, it is clear that the experience of CtC added something important to their home socialisation because these values did not feature in our interviews with youths who had attended the same school, but were enrolled in classes that did not adopt the CtC approach.

What Works in Girls' Education

Insights, Camfed, April 2012

Not available online

Evidence from Zambia suggests that training in child-to-child approaches can effect achievement. Mwape and Serpell, (1996) and Serpell, (1998, 1999) showed that child-to-child techniques led to a dramatic improvement in educational outcomes for girls – in child-to-child classrooms the qualification of participating students for admission to secondary school improved to 74%, with girls accounting for two-thirds of this figure, in contrast to averages of 33% and 29% for two non child-to-child classrooms.

Children As Partners for Health: A Critical Review of the Child-To-Child Approach

By Pat Pridmore, David Stephens, John Stephens, 2000, Zed books

http://books.google.co.uk/books?id=QWeF8HWM0esC&printsec=frontcover&source=gbs_ge_summary_r&cad=0#v=onepage&q=kampala%20took&f=false

247 children in 17 schools in and around Kampala took part in a controlled study assessing the affects of child-to-child approaches to health education. After a year, those in schools where child-to-child had been introduced scored significantly higher in self-concept-rated behaviour in school and a rating of their positive behaviour towards other children. The study group had significantly fewer days absence from school compared to the control group. The research found no differences in academic achievement or health knowledge between the two groups.

Child-to-Child: A Review of the Literature (1995 – 2007)

Babul F, 2007, The Child-to-Child Trust

<http://www.child-to-child.org/resources/pdfs/CtC%20Literature%20Review%20Final%20-%202007.pdf>

Tanzania Country Assessment report

The Ministry of Education in collaboration with Aga Khan Foundation, Tanzania has developed the Child-To-Child project on health education in Zanzibar. The project was developed in response to the prevalence of several health needs and problems in schools and communities. Among the problems facing the schools are lack of health education

components in primary education and in pre-service and in-service teacher training curriculum. Others include inadequate access to basic utilities like clean water or acceptable toilet facilities in schools and communities, and severe malnutrition as well as high child and infant mortality rates mostly from preventable diseases.

The project was evaluated twice; during the pilot phase and after the completion of Phase II. Some of the recommendations which were put forward after the completion of the phase II are as follow:

- The CTC project has had a positive impact of enhancing the level of health knowledge and practice in the majority of village communities (regardless of their length of exposure to it) beyond levels attained by non – CTC communities.

There is no sufficient evidence to show that the project made any significant difference in the area of health attitudes to make CTC Communities excel over non- CTC communities in as the health attitude scores are generally quite high.

The CTC approach was made operational through outreach activities undertaken individually and/or collectively by children (alone or assisted by their teachers) as community change-agents, seems to have been effective.

Impact Evaluation of the Child-to-Child Health Education Project in Zanzibar (Komba 1996)

The Aga Khan Foundation Tanzania in partnership with the Zanzibar Ministry of Education implemented a five year project from 1990-1995, which involved 10 schools in the first phase (1990-1991) and then extended to 44 primary schools in the second and final phase (1992-1995). The evaluation assessed the impact of CtC approaches on the community's knowledge, attitudes and practices and to assess the CtC approach's effectiveness in impacting knowledge, attitudes and practices.

Successes include:

- Pupils demonstrated that they had acquired health knowledge and proper health habits, although there was not sufficient evidence about attitude changes.
- Teachers reported an increase in pupils' attendance and decline in the drop-out rate.
- Communities showed high health knowledge and practice scores although the evaluator was cautious in attributing this to the CtC programme directly and exclusively.
- Female students excelled in health practices while male pupils excelled in health knowledge and attitudes.
- A majority of pupils involved with CtC reported to have spread messages to their parents and siblings.

Learning from Children: A Review of CtC Activities of Save the Children Fund (UK) in Nepal (Zaveri et al 1997)

- Overall school attendance and punctuality improved among children and teachers were more motivated because of improvements to the school environment (e.g. water and sanitation provision)
- Strengthened links between schools and community groups have been built to support children's action and women's groups encouraged girls to attend school
- Schools were managed better with time tabling, well organised assemblies, improved student behaviour and starting on time.

A Child-to-Child Programme in Rural Jamaica

Knight J et al, 1991, Child: Care, Health and Development 17 (1)

<http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2214.1991.tb00678.x/abstract>

Access to abstract only

A child-to-child programme was carried out in six rural schools in Jamaica. School children in Grades 4 and 5 were taught concepts of nutrition, environmental and personal hygiene, and child development. The children were encouraged to take messages home to their parents and improve the care of their younger siblings. Four hundred and twenty-three children and 90 mothers and guardians from four of the project schools were evaluated and compared with 199 children and 47 parents from two control schools. The project children showed higher scores on a test of knowledge in the topics at the end of the year. They also improved in some practices at home. The mothers improved in knowledge in some areas but not in their practices. The authors consider the results sufficiently encouraging to justify incorporating the programme into the country's education curriculum for primary schools.

Getting Ready for School Programme: A Child-to-Child Approach: Programme Evaluation for Year One

UNICEF Evaluation Office, June 2010

http://www.unicef.org/education/files/UNICEF_CtC_Year_One_Impact_Evaluation.pdf

The purpose of UNICEF's *Getting Ready for School* programme is to facilitate the successful transition of young children into primary school through the use of older school children (Young Facilitators) as providers of early childhood education support to younger children in their communities. Programme goals include improved school readiness and on-time enrolment among young children, as well as increased family, community and teacher support for young children's learning. This pilot program was implemented in six countries during the 2008-2009 school year: Bangladesh, China, the Democratic Republic of Congo, Ethiopia, Tajikistan and Yemen.

There were at least some significant programme impacts on children's school readiness in all six countries, and there were significant programme impacts on children's beginning literacy and beginning mathematics in four countries. Impacts on non-academic skills, such as the ability to follow directions, were less consistent across countries. Programme impacts were most apparent in countries where children had a higher programme dosage (such as extra home- or community-based sessions). Children's on-time enrolment information has only become available from three countries, and all three provided information that points to positive programme impacts. Most notably, in Yemen, the programme group had an on-time enrolment rate that was 32 percentage points higher than for children from a control group.

There is also evidence that Young Facilitators benefited from their participation in the programme, including recognition of their efforts by the community, and reported gains in self-confidence and enthusiasm for school. Overall, Young Facilitators took their work very seriously, having high attendance at the programme and spending a great deal of time helping the younger children learn. Young Facilitators from all countries were observed to use pedagogical methods that were familiar to them from their own teachers, but that were not always child-friendly or child-centred. It was hoped that through training and programme participation, teachers would make some gains in their belief in the value of child-centred pedagogy, belief in the importance of school readiness and (for first grade teachers) expectations for children's school readiness upon enrolment, but we found little programme impact in any of these areas.

Peer Tutoring and Student Outcomes in a Problem-Based Course

Sobral DT, 1994, *Medical Education* 28(4)

<http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2923.1994.tb02713.x/abstract>

Does peer-tutoring affect students' educational outcomes in problem-based learning? Students' characteristics and outcomes were compared along 14 successive classes of a problem-based learning course in the University of Brasilia medical programme. In the first stage of this time series, 26 teacher-tutored groups were formed; in the second stage, 50 groups had both teacher- and peer-tutoring. Both groups had equivalent characteristics in stages one and two as regards membership size and composition (students' learning style, self-confidence and motivation to learn). Results showed that scores for problem-solving tests and self-evaluation of skills were not significantly different between first and second stage groups. However, scores of meaningfulness of course experience and group work usefulness were significantly higher in the peer-tutoring stage. Significant positive correlations were found between scores of meaningfulness of course experience and both self-evaluation and group work usefulness but not between the first measure and group size or motivation to learn. The findings suggest that peer-tutoring can facilitate group work without sustained loss of cognitive achievement in long range conditions of problem-based learning experience.

Child-to-Child: Another Path to Learning

Hawes H, 1988, UIE Monographs 13

http://eric.ed.gov/ERICWebPortal/search/detailmini.jsp?_nfpb=true&_ERICExtSearch_SearchValue_0=ED300345&ERICExtSearch_SearchType_0=no&accno=ED300345

Access to abstract only. The book offers discussions on the implementation and impacts of the programme.

Ten years ago the Institutes of Education and of Child Health of the University of London organised the initial meetings of what was to become a worldwide concept. A small team of pediatricians, curriculum designers and field workers from a variety of countries turned the key messages of primary health care into activity sheets for the Child-to-Child program which can now be found in national primary and community education systems in over 50 countries. Three basic assumptions underlie the programme:

- (1) primary education becomes more effective if it is linked closely to things that matter both to children and their families and communities;
- (2) education in and out of school should be linked as closely as possible so that learning becomes a part of life;
- (3) children have the will, the skill and the motivation to help educate each other and can be trusted to do so.

This book offers discussions on the implementation and impact of the program, evaluates its future, and offers insights into the program's implications. Case studies are also offered. Appended are examples of materials and activities used around the world.

3. Evidence from Developed Countries

Effects of Peer-Assisted Learning Strategies on High School Students with Serious Reading Problems

Lynn S. Fuchs LS. Fuchs D & Kazdan S, 1999, Remedial and Special Education 20 (5)

<http://rse.sagepub.com/content/20/5/309.short>

This study examined the effects of peer-assisted learning strategies (PALS) on students' literacy development and beliefs about reading, when PALS is implemented with secondary-level students in remedial and special education classes. Teachers were assigned to PALS ($n = 9$ classes) and contrast ($n = 9$ classes) treatments. Teachers implemented PALS with their entire classes five times every 2 weeks, for 16 weeks. To designate research

participants for outcome measurement, teachers identified all students whose reading instructional levels were Grades 2 through 6. Reading comprehension and fluency were measured before and after treatment; beliefs were indexed after treatment. Analyses of variance indicated that, compared to contrast counterparts, PALS students grew more on reading comprehension and reported more positive beliefs about working hard to improve reading. However, PALS and contrast students grew comparably on reading fluency and reported similar beliefs about being and wanting to become better readers. Implications are discussed for developing effective forms of peer-mediated instruction for use in high school remedial and special education classes.

Peer Learner Engagement: Enhancing the Promise of School Improvement

Cassel W & Dagget WR, 2010, International Center for Leadership in Education
<http://www.leadered.com/pdf/Peer%20Learning%20white%20paper.pdf>

One example of a structured programme is Learning Together, a cross-age tutoring programme that addresses achievement, learner engagement, and personal skill development for at-risk learners. Learning Together tutees in grades 2-6, and their upper elementary and middle school tutors, have been shown to reach or exceed state proficiency standards in fluency and comprehension (Reading Together) and critical International Center for Leadership in Education thinking and problem solving (Math Together) in a wide range of implementations in Title I and 21st century schools. Academic gains are consistent across subgroups; independent research indicates that gains are most pronounced in the highest-need populations, including English Language Learners, economically disadvantaged/Title I, and special education students.

In Evidence of Long-Term Learning Outcomes Among Reading Together Tutees (Policy Studies Associates, Inc., 2007), R2 students in the Irving Independent School District, Texas, maintained their gains after exiting the programme. "Test results do suggest that the R2 participants ... are making greater gains in reading ... in the two and one-half year time lapse between the pretest and the TAKS [Texas Assessment of Knowledge and Skills] administration, participants made substantially greater gains than the general population."

In Cherry Creek Public Schools, Colo., which has used Reading Together for the past five years, results on the QRI3 Reading Assessment Instrument indicate:

- 2nd grade tutees gained 2.6 grade levels in accuracy and 2.2 in comprehension
- 3rd grade tutees gained 2 grade levels in accuracy and 1.5 in comprehension
- 4th grade tutors gained 2.5 grade levels in both measures
- 5th grade tutors gained 4 grade levels in accuracy and 3 in comprehension

In addition, Cherry Creek chose peer learning as part of its initiative to build internal and external developmental assets such as motivation, responsibility, engagement, sense of purpose, sense of personal power, and positive peer influence. "The self-respect and commitment kids bring to the process has grown each week," one administrator noted. "Tutors have gained empathy for their tutees and classroom teachers. They're highly motivated to rise to the occasion, to be prepared and to set a positive example."

Cooperative Learning in Science: Follow-up from primary to secondary school

Allen Thurston et al
<http://bit.ly/NSptlB>

This paper reports a two year longitudinal study of the effects of cooperative learning on science attainment, attitudes towards science and social connectedness during transition from primary to high school. A previous project on cooperative learning in primary schools observed gains in science understanding and in social aspects of school life. This project

followed 204 children involved in the previous project and 440 comparison children who were not as they undertook transition from 24 primary to 16 high schools. Cognitive, affective and social gains observed in the original project survived transition. The implications for improving the effectiveness of school transition by using cooperative learning initiatives are explored. Possibilities for future research and the implications for practice and policy are discussed.

Child-to-Child Interaction and Corrective Feedback in a Computer Mediated L2 Class

Morris F, 2005, Language Learning & Technology 9(1)

<http://www.llt.msu.edu/vol9num1/morris/default.html>

The current study examined the provision of corrective feedback and learner repair following feedback in the interactional context of child-to-child conversations, particularly computer mediated, in an elementary Spanish immersion class. The relationship among error types, feedback types, and immediate learner repair were also examined. A total of 46, fifth-grade children participated in the study. Using *Blackboard*, the instructor randomly paired students and created a "virtual group" for each pair. Each pair was asked to interact and complete a jigsaw task in the "virtual classroom." *Blackboard* recorded the pairs' interactions, which were later printed and coded for types of error (syntactic/lexical), types of negative feedback (explicit/recasts/negotiation) and immediate learner repairs. Findings indicate that learners did not provide explicit negative feedback. Learners provided implicit negative feedback (recasts and negotiation) while completing the jigsaw task in the virtual classroom. The majority of lexical errors and syntactic errors were corrected using negotiation. Over half of feedback moves led to immediate repair. Negotiation moves proved more effective at leading to immediate repair of errors than did recasts.

Peer Mentorship in Clinical Education: Outcomes of a Pilot Programme for First Year Students

Yates P et al, 1997, Nurse Education Today 17 (6)

<http://www.sciencedirect.com/science/article/pii/S0260691797800135>

Access to abstract only

Identifying effective strategies for promoting learning in the clinical setting continues to pose challenges for nurse educators. The aim of the present paper is to examine the potential that peer mentorship may have in helping nursing students to improve clinical learning outcomes. An example of a peer mentorship programme for nursing students undertaking their first clinical practicum is described, and preliminary findings from an evaluation of this pilot programme are presented. The results suggest that peer mentorship may be of some benefit to students, particularly in relation to reducing anxiety and improving confidence with clinical practice experiences, and is therefore a strategy which is worthy of further investigation.

The Effects of Cooperative Learning on Junior High School Students' Behaviours, Discourse and Learning During a Science-Based Learning Activity

Gillies RM, 2008, School Psychology International 29

<http://spi.sagepub.com/content/29/3/328.full.pdf+html>

This study investigated the effects of structured and unstructured cooperating groups on students' behaviours, discourse and learning in junior high school. One hundred and sixty-four grade 9 students participated in the study. The students were videotaped as they worked in three to four person, mixed-gender and ability groups on a science-based categorisation activity. The results show that the students in structured cooperating groups demonstrated more cooperative and helping behaviours such as giving more elaborated help and guided directions to assist understanding than their peers in the unstructured groups. Moreover, they demonstrated more complex thinking and problem-solving skills both in their discourse and

their responses on the follow-up learning probe. These findings are discussed in the context of the importance of structuring cooperative learning experiences if students are to attain the benefits widely attributed to this approach to learning.

4. Peer and Self Assessment

The Impact of Self-Assessment on Achievement: the Effects of Self-Assessment Training on Performance in External Examinations

McDonal B & Boud D, 2003, Summary from Assessment in Education 10(2)
<http://bit.ly/NSptB>

The study reported that:

- students who received the training performed better in the final examinations in the four curriculum areas than those who did not receive formal training;
- gains in student attainment were greater for business studies, humanities and technical studies than those for science;
- students valued the training
- the self-assessment training during the students' final year did not disrupt their overall learning

Systematic Review of Research Evidence of the Impact on Students in Secondary Schools of Self and Peer Assessment

Sebba J et al, 2008, EPPI Centre

<http://eppi.ioe.ac.uk/cms/LinkClick.aspx?fileticket=laxzMTLTTWM%3d&tabid=2415&mid=4477>

Most studies reported some positive outcomes for the following:

- Pupil attainment across a range of subject areas (9 out of 15 studies showed a positive effect)
- Pupil self-esteem (7 out of 9 studies showed a positive effect)
- Increased engagement with learning, especially goal setting, clarifying objectives, taking responsibility for learning, and/or increased confidence (17 out of 20 studies showed a positive effect)

Conditions that affect the impact of self or peer assessment:

- The classroom culture was related to positive outcomes for students. The teacher needs to be committed to learners having control over the process, and to be able to discuss learning and develop effective student feedback.
- Self and peer assessment are more likely to impact on student outcomes when there is a move from a dependent to an interdependent relationship between teacher and students which enables teachers to adjust their teaching in response to student feedback.
- Although no clear relationship between students owning the process and positive outcomes was established in the review, it does seem to be important to involve students in 'co-designing' the criteria for evaluation. This helps them to develop a better grasp of their own strengths and weaknesses. Students need to be aware of the targets they are trying to achieve, and these should focus on outcome not process goals.
- There were no significant differences for different groups of students (for example by gender, ethnicity or prior attainment).
- There was no clear evidence to show whether peer and self assessment works better in some subjects than others, although limited evidence suggests that practice-based

subjects may respond more immediately but that the outcomes are less embedded than in other subjects.

The Impact of Omani Twelfth-Grade Students' Self- Assessment on their Performance in Reading in English

Moheidat AS & Baniabdelrahman AA, 2011, The Asia EFL Journal
<http://www.asian-efl-journal.com/PDF/March-2011-asm.pdf>

During the study, the researchers found out that students' self-assessment had several advantages. They found that it did lead to improvement in students' learning, as the results of the post-test show. It encouraged students to participate more openly which was clear from the researchers' day-to-day observation. It directed students to give more accurate and honest answers, especially when they felt that they would not be judged by marks. It also helped students to direct their own efforts more effectively which was clear in the paper work which they had submitted, especially towards the end of the study.

More importantly, it made students more involved and motivated in the learning process which was very clear in their participation inside and even outside the classroom. They started to feel that they have a role to play and when they play it right they gain more. That is to say, when they were able to assess themselves correctly and give accurate feedback to the teacher, the teacher played his role in helping them with their problems. Consequently, they started to overcome their reading problems and their reading comprehension improved. That is why they started to participate in the morning broadcast more effectively; they started preparing class magazines on their own; they even took the risk to prepare and organise a book exhibition in the school; they became more active in the English Club activities that were held inside or outside the school; and they started to visit the library more often.

Student self-assessment and its impact on learning – A pilot study

Dearnley CA & Medings FS, 2006, Nurse Education Today 27(4)
<http://www.sciencedirect.com/science/article/pii/S0260691706000840>

The pilot study examined the impact of self-assessment on learning and how the process was perceived by students and staff. Findings indicated that a varied approach had been taken to its implementation, which had significant repercussions in the way in which it was perceived by students. Similarly, there was a varied approach taken by students to the process of self-assessment and this had significant repercussions for its overall value as a learning tool. The outcomes of this study provide a sound rationale for maintaining and expanding the practice of student self-assessment and important lessons for the process of doing so.

Student peer assessment

Stephen Bostock, 2000, Keele University
http://www.heacademy.ac.uk/assets/documents/resources/resourcedatabase/id422_student_peer_assessment.pdf

Student assessment of other students' work, both formative and summative, has many potential benefits to learning for the assessor and the assessee. It encourages student autonomy and higher order thinking skills. Its weaknesses can be avoided with anonymity, multiple assessors, and tutor moderation. With large numbers of students the management of peer assessment can be assisted by Internet technology.

A fairly typical example of formative and summative peer assessment was carried out in 1999/2000 by the author on an MSc module (Bostock 2000). Thirty-eight students developed

instructional web applications (hypermedia or tutorials) on a topic of their choice for 25% of the module assessment. Each student placed their "draft" application on their web space, from which four assessors per assessee provided formative reviews as text criticisms and percentage marks against five criteria. Anonymity of authors was not possible as the student web addresses included their username but the assessors were anonymous; code numbers were used to identify reviews. After receiving anonymous reviews of their work students had time to improve it, and final versions were mounted on the web spaces by a submission deadline. Summative assessments of the same applications were done by the original assessors, sending only marks to tutors, apparently for moderation. The four marks per author were compiled but, in fact, the tutor re-marked all the work.

Sixteen students returned an anonymous evaluation of the assessments. For most students, some or all of the formative reviews had been useful, especially as anonymity allowed some reviews to be "ruthless". Text feedback was valued more than marks. Some said they had wanted more time to act on the criticisms. Most said that seeing other students' work had also been valuable. Feelings were mixed about the use of student summative marking in the module grade, and most only wanted them used if moderated by the tutor. The main problem with the summative assessments was that student preoccupation with the final examination meant that some students did not do them. The marking was variable. Student marks for any one application had a range of 11% with a standard deviation of 6.6%, on average. The correlation between the mean student mark and the tutor mark was only 0.45. This might be improved in future with negotiated criteria (Race, 1998) and more assessment practice (Brown, Sambell and McDowell, 1998).

Improvements in Mathematics Performance as a Consequence of Self-Assessment in Portuguese Primary School Pupils

Fontana D & Fernandes M, 1994, British Journal of Educational Psychology 64 (3)
<http://onlinelibrary.wiley.com/doi/10.1111/j.2044-8279.1994.tb01112.x/abstract>
Access to abstract only

The research set out to test the effects upon children's academic (mathematical) performance of the regular use of pupil self-assessment techniques taught to a group of 25 primary school teachers on a 40 hours INSET course, and subsequently introduced by them as routine procedures in their individual classes. Results showed that the children ($N=354$) in these classes manifested significant improvements in scores on a purpose-built mathematics test when compared to a control group of children ($N=313$) in classes where pupil self-assessment was not employed.

5. Activity-Based Learning

Activity Based Learning Effectiveness of ABL under SSA

School Scape. 2008

<http://www.educationforallindia.com/evaluation-of-activity-based-learning-of-tamil-nadu.pdf>

A report of the baseline and year-end surveys by SchoolScape, Centre for Educators and Sarva Shiksha Abhiyan, Government of Tamil Nadu, India. This is a representative study that includes the learning environment of the classroom and the academic assessment of children before and after the intervention of the Activity Based Learning Programme.

After Activity Based Learning materials and trainings had been implemented for nine months data was collected from approximately 200 schools from within the original sample of about 750 government run schools in Tamil Nadu year end survey 2008 on assessment.

Teachers in 2008 had improved their methods of assessment and feedback in order to better support students' learning. Teachers were much more likely to record their assessments of children in the class. In 2007, there was a record in only 48% of classrooms, and in 2008 assessment was recorded in 95% of classrooms. Children were also more likely to receive feedback in the form of reports (37% in 2008, 19% in 2007), and discussions (32% in 2008, 19% in 2007). Moreover, the assessments given to students were more likely to feed back into the children's work plan for the term. This occurred in 79% of classrooms compared to only 59% during the baseline study.

Part of the focus of ABL is for students to work together in groups; 66% of teachers strongly agreed that children learn better in groups. As a result of using the activity based learning approach, only 10% of the teachers felt they need to instruct children in what to do next at every step of their work.

Key findings:

- Average achievement of children increased significantly in all subjects
- Gaps in achievement within gender, location and social groups was narrowed down
- More children shifted from low achievement range to very high and excellent achievement range
- Dispersion in children's achievement was reduced

Mainstreaming Child Centred Learning: Activity-based Learning in Tamil Nadu, India

Mahapatra A, 2009, [ashanet.org](http://www.ashanet.org)

http://www.ashanet.org/siliconvalley/asha20/pdfs/d2_abl_d3.pdf

The document includes a description of the activity-based learning approach. Some of the elements include:

- Each subject was divided into milestones, with many activities to achieve a milestone
- Each activity was put together as a set or an individual card
- At the end of each milestone was an assessment card
- The children worked at their own pace, moving to the next activity as they completed each milestone
- The children worked individually or in small groups
- The teacher played more of a facilitating role
- The children knew the sequence of the curriculum, as it was displayed as a 'ladder' on a chart which they referred to
- There were no textbooks, only a couple of workbooks
- There were low level blackboards where they could write or draw by themselves
- Their work was displayed

6. Additional information

Author

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