

CMGE: a lighthouse for multi-grade teaching in Africa

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Multi-grade teaching is found in education systems all over the world but particularly in poor, rural areas of developing countries. The Centre for Multigrade Education (CMGE) estimates that about 200 million children worldwide receive their primary education in multi-grade schools and, if universal primary education is to be attained, this figure may grow to about 270 million. In South Africa, between 26 and 30 per cent of all schools are multi-grade. On the continent of Africa as a whole, this figure is about 50 per cent.

When the CMGE was established in South Africa in 2009, the following rationale was developed for its work: An international centre for the development of frameworks and policies for quality instruction and learning in multi-grade education, based on research and good practices and distributed and supported through information technology (IT). With this as a guideline, the CMGE has tried, over the last four years, to solve multi-grade problems. This article describes some of its methods and achievements.

Training courses for teachers and officials

The only way to improve outcomes is to improve instruction (McKinsey & Company, 2007).

The Centre offers a short course in multi-grade teaching and an adult continuing education (ACE) course as well as postgraduate degrees (masters and doctorates).

Short course in multi-grade teaching

As there was not really any training for multi-grade teachers in South Africa, the Centre developed an effective, hands-on course. This consists of five contact day sessions and a final assessment based on an academic discussion and the handing in of a completed portfolio. The training is followed by at least six weeks of implementation in the classroom, which involves physical class visits that are thoroughly discussed with the teachers. A study guide was developed for the training. The course has a value of 40 credits.

This course is especially offered for to Department of Basic Education in all nine provinces. It is seen as so successful that the provinces have requested the Centre to train more teachers in their respective provinces.

ACE in multi-grade education

The adult continuing education (ACE) course has 120 credits and may be completed part time over a period of two years. The short course described above counts as one module.

Repacking the curriculum

The heart of CMGE is the curriculum, which is designed to promote active and collaborative learning. It shifts the conventional paradigm of education and introduces a vision for a new type of school that is both high quality and cost-effective. Key elements of the curricular component include learning guides for children, learning boxes, student government and a classroom library.

From lesson to lesson, the CMGE curriculum combines life skills with academic subjects, presented in ways that are immediately relevant to children, and promotes dialogue and interaction. It also links learning experiences with families and communities, and promotes the development of thinking. In addition, the self-paced mechanism allows children and teachers to spend time on specific subjects and activities as needed.

Learning guides

The CMGE specialises in the development of learning guides for South African multi-grade schools. The guides promote both individual and peer learning through a variety of activities that encourage reflection, collaboration and social construction of knowledge. They are 3-in-1 publications, combining the child's textbook and workbook and the teacher's planning guide. Children share these guides during lessons, and teachers can retain the guides from year to year. The self-paced modules allow for each student to develop an interest in learning and investigation.

The guides are continually updated and improved through a rigorous research and development process. They are designed according to international standards and focused on big concepts and universal knowledge as well as essential skills to develop the emotional, personal, social and academic aspects of children. They are non-discriminatory, respect diversity and ensure equality.

Learning boxes

A learning box is a box or container with differentiated and learner-centred activities based on different kinds of sources. Each box deals with one theme, topic or concept but covers a series of levels. A group of learners work on this simultaneously while other learners are busy with other learning activities. Each box contains:

1. Concrete apparatus, etc.
2. Multimedia (videos, sounds, stories, etc. on a CD or DVD)
3. Educational games, etc.
4. Visual apparatus (e.g. pictures, wall charts, posters)



Photo: Commonwealth Secretariat/Rebecca Nduku

Makeshift classroom in East Africa

5. Learner-friendly and differentiated activities connected to the apparatus, printed and electronic
6. Evaluation, assessment and reflection materials
7. A teacher's guide.

The Centre's approach to research

Previous educational research seems not to have solved the problems in poor, rural areas. Therefore the Centre uses design-based research to make a difference in classrooms. It aims to contribute to quality education in multi-grade schools by defining the particular pedagogy required, developing it in schools by means of research and measuring its impact.

The Centre has already completed the following reports by special request:

- Baseline Study, Multi-grade in South Africa, 2009
- Challenges for Multi-grade in Botswana, 2009
- Numeracy in Rural Areas, 2010
- Closing of Small Schools in South Africa, 2011
- Reading Strategies, 2012
- Information and Communication Technology (ICT) in Lesotho [UNESCO], 2012
- Multi-grade Pedagogy in the World, 2012 (this report will be published as a book at the end of 2012).

The Centre plans its activities so that post-graduate students can participate in its research projects as part of their own research. The advantage for the student is that their supervisors are part of the activities of the CMGE and they receive bursaries to do research. The results of this research are busy building up a literature legacy about multi-grade instruction.

International study visits

In an effort to gain good practices, study visits are undertaken to observe this in the classrooms of small schools. There have been more than 20 study journeys in this past year to, among others, Belgium, Colombia, Kansas (USA), Kenya, Lesotho, Namibia, the Netherlands, Uganda, United Kingdom and United Republic of Tanzania.

Special CMGE projects

The CMGE has a monthly newsletter; an online journal that is published twice a year, *SA Rural Educator* (<http://www.cmge.co.za/ejournal>) and a website: <http://www.cmge.co.za/>. It also has an arts project, a sports project and a programme in early childhood education. In addition, it is developing a model or demonstration school project to further the quality of rural multi-grade education using ICT (see Box 1).

Children in multi-grade schools are not exposed to sports activities, resulting in deficiencies in the development of creative thinking and skills and physical development aspects relating to big and small

motor skills required to successfully complete primary education. This project is being developed as a pilot in 16 schools. The results will be used in the CMGE's mainstream training courses.

Early childhood development is currently very poorly developed, and a programme on early childhood education is being developed as a pilot in 16 schools to create more quality instruction. As with the sports project, results will be used in the CMGE's mainstream training courses.

Partnerships

It is very important that the trainers of teachers be involved with solving multi-grade problems. Helping South African universities build up the necessary knowledge about the topic could make a massive contribution to the improvement of quality education in the future. CMGE has established partnerships with the University of KwaZulu Natal, the University of Fort Hare, the University of Venda, North-West University and the Cape Peninsular University of Technology (CPUT) on certain actions to improve access and quality of education and learning in multi-grade schools by means of research and good practices.

In addition, the Centre partners with educational corporations (SLO, CITO), foundations (Escuela Nueva, IADT) and other institutions (e.g. the Meraka Institute, the operating unit of the Council for Scientific and Industrial Research focused on ICT; SAP;

Telkom). These partners have already supplied information that the Centre has used to address some outstanding problems; for example, SLO made a very big contribution in the development of CMGE's mathematics learning guides.

The Centre also partners with the Government of the Netherlands, which funded its establishment.

Conclusion

You cannot teach what you don't know. You cannot give energy if you're not on fire on the inside.

Jesse Jackson, civil rights leader

Rural people have no real political voice, so when there is competition for limited resources – and education for remote areas can be costly – they tend to lose out. The very good research report, *Emerging Voices*, describes it as follows: 'The experiences of the rural poor in South Africa are not well understood, and are not currently fully appreciated in the processes of education policy development' (Nelson Mandela Foundation, 2005: 146).

Rural education in South Africa, when considered at all, is only seen as a problem; little literature attempts to assess rural communities in terms of their assets. Common perceptions virtually equate rural areas with educational deficiency and poverty. The CMGE, on the other hand, presents the case for adopting a 'rural lens' when analysing education issues in the country since the majority of the population lives in rural areas. The CMGE examines conceptual and practical implications for the evaluation of 'rural-sensitive' education. It is part of the Education for Rural People (ERP) flagship initiative, an illustration of a creative scheme to mobilise the international community around a rural agenda for education.

An experienced and skilled multi-grade teacher has summarised the work of the Centre as follows: 'For me the CMGE stands out like a lighthouse to show the way forward for multi-grade teaching in Africa.'

References

Nelson Mandela Foundation (2005). *Emerging Voices: A report on education in South African rural communities*. Cape Town: HSRC Press.

McKinsey & Company (2007). *How the Best Performing School Systems Come Out on Top*. Available at: http://www.mckinsey.com/locations/UK_Ireland/~/media/Reports/UKI/Education_report.ashx

Box 1

Demonstration school project using ICT

The establishment of demonstration, or model, schools is very important in order for the actions of the CMGE to be successful as this would enable educators from South Africa, as well as from the rest of Africa, to receive instruction in multi-grade teaching. The CMGE will take identified schools under its wing and ensure that the quality of education will improve and stay on this level. These schools will then serve as an example for all multi-grade schools in the country. This will ensure that the school will continually be supported and used as an example.

The aim is radical restructuring of the curriculum and of the pedagogical strategies employed by curriculum developers and teacher educators, leading to learning activities in the classroom that ensure more learner time on task and more engagement with stimuli for learning – through learning guides, ICT and the professional development of teachers.

The project focuses on assisting rural multi-grade education by providing digital educational content and enhancing access to ICT for teaching and learning. ICT is expected to increase access to on-line education materials and to promote the development of local content. The CMGE considers the project as a chance to combine advanced ICT and multi-grade pedagogy. It will enhance the capacities of teachers and prepare students for their professional future.

Dr Jurie Joubert is Director of the CMGE at Cape Peninsula University of Technology, South Africa. He is active in international education conferences in Africa, Europe and elsewhere, and he recently attended the planning workshop for the Advanced Programme in Teacher Policy Development and Capacity Building hosted by the United Nations Educational, Scientific and Cultural Organization International Institute for Capacity Building in Africa (UNESCO-IICBA) (March 2012). He has published widely in academic journals, textbooks and the media.