

## Learning and Learning Disabilities in Africa

JUNE 2010 Issue 3.

*Dear Colleagues and Friends,*

Scientific research lays a solid foundation for social development and provides solutions for improving the quality of life. Evidence-based policies and methods are needed in all areas of life. Moreover, research needs to address the specific needs of different countries and seek answers to questions that rise from the local community. Niilo Mäki Institute has collaborated with African partners for over two decades and provided training and studying opportunities for professionals working in special education and education. This work has now taken a big step forward.



One of the major issues is that Africa is struggling with low literacy skills and poor reading performance in schools. Many African countries, like Zambia, have wisely returned to the use of local languages in the early literacy instruction instead of English. However, in Africa, the question of language of early literacy is more than the issue of respecting cultural value of local languages or providing education on ones mother tongue. The languages of the world are dramatically different in terms of learning the basics of reading, such as letter-sound correspondences.

English writing system is highly inconsistent – practically none of the letters represent the same sound everywhere in English orthography – in many of the local African languages the correspondences are one to one at phoneme-grapheme level, exactly as in Finnish. In Finland, more than one third of children learn to read before they have received any formal instruction because the writing system is so easy to understand. This could also be the case in Africa, if the importance of using the local languages in initial literacy instruction is recognized. Currently the teachers lack the knowledge in phonics based instruction methods and the impact of language. As a result, the teachers tend to use methods that make learning to read unnecessarily difficult for the majority of children.

Alleviating these problems is now the aim of our new co-operation in Africa. The Academy of Finland has given a three year grant to research literacy acquisition in Zambian local languages. Within this new emerging co-operation several Zambians will be conducting their PhD research. We will continue exploring the ways to use an educative learning game Graphogame on mobile phones for both teachers and pupils. The game has provided efficient support for Finnish children. In a previous pilot project in Zambia, we collected promising indications in several masters thesis that providing systematic phonics instruction in a learning game environment can effectively complement the available reading instruction. Thus our aim in the collaborative research is to find out whether children in Zambia could get comparable advantage in learning to read by using the game freely in mobile phones. We hope that the experimental research on pupils and teachers will guide us to use optimal ways to introduce phonics in literacy instruction. This can lead children to acquire the alphabetic principle using local highly consistent writing systems after advising teachers to instruct efficiently the core knowledge of reading – the letter-sound awareness.

*Yours,*

*Heikki Lyytinen*

*Professor of developmental neuropsychology, University of Jyväskylä, Finland*

## The views of learners regarding factors in the classroom that influence learning in the Khomas Education region

by Mr. S. C. Nwihimi, Namibia  
Masters of Education thesis,  
University of Namibia (2008)

### ABSTRACT

The results of learners at the end of the academic year are one area in which the general public expects to see an improvement. This is not so in Namibia, when one looks at the results from the Junior Secondary Certificate (JSC) and the International General Certificate of Secondary Examinations (IGCSE) for the year 2004. It is this lack of significant improvement in some subjects that has caused concern among parents and the general public. In fact, this concern has motivated many stakeholders in education to attempt to establish the problems learners face in the classroom, the objective being to assist them to improve their learning. The major purpose of this study, therefore, was to obtain from learners their views regarding the factors in the classroom that affect their learning. In addition, the study attempted to identify teacher support strategies that learners would need in order to improve their learning.

A learner questionnaire was administered to a proportional stratified sample of 637 grades 10 and 12 learners from the Khomas Education Region. Ninety percent of the learners completed and returned the learner questionnaire.

The results obtained indicated that the most frequently reported factors that influence learning in the classroom were:

motivation, learners' self-esteem, self-efficacy, learners' locus of control, attitude towards learning, relevance of subject matter, teacher factors and classroom size. There were some significant relationships of the learners' views when broken down by grade level, gender, repeaters, and hostel or home dwelling. However, the researcher found no significant relationships of the learners' views on the other variables such as age, language, class size and home location.

The results of the study further revealed some teacher support strategies that learners would need to improve their learning. These support strategies included behavioural, psychosocial, emotional and language support.

As a result of the findings from this study, it is recommended that the Ministry of Education (MoE) should, as a matter of urgency, make subjects like Life Skills and Religious and Moral Education (RME) promotional subjects, which, it is believed, would help learners to improve their learning. It is also recommended that the MoE should establish soup kitchens to provide food during break time in all schools to cater for many children who attend school without food, in order to address sufficiently the gap it has created in the learning environment. Finally, all the factors, expressed by learners as influencing learning in the classroom, should be addressed with the urgency they deserve if progress is to be expected in learner performance.

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## Phoneme-grapheme matching inconsistencies in Writing Afaan Oromo: inhibiting automatic reading and learning behaviour development

(An Inclusive Education Based Research Project on Sample Schools in Oromia and Reciprocating HEIs)

by Mr Bokko Gurrea Roba, Ethiopia  
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### ABSTRACT

Felt need for quality of learning, growing research evidence that skilled phonics instruction prevents and ameliorates reading and writing difficulties, school improvement policies that require teacher-parent actions to respond to learners' special educational needs are all adding a momentum to improving teacher knowledge and skills in **phoneme-grapheme matching consistencies**, in writing *Afaan Oromo*, so as to improve quality of reading and writing instructions in schools which currently felt to be among the major factors militating against the **meaningful and mastery learning development** needed for school success for all learners.

Conceptual and theoretical frameworks that explain language acquisition principles pertinent to reading and writing development together with teacher' reading and writing consistencies (and/or accuracies) as initial reading and writing behaviour shapers and **observational learning** role models, provide useful insights for curriculum planners and teacher training institutes in general and for those involved in early childhood and primary education in particular. Phoneme-grapheme matching skills, as the only means for **spelling Afaan Oromo** (because it does not have **conventional spelling** such as that of English),

demand a well designed methods of instruction that systematically tackle mastery based reading and writing of the language, using sufficient samples of its **contrasting sound systems of phonemic minimal pairs**. (See attached). In a nutshell, teachers' phoneme –grapheme matching skills should neither be assumed nor overlooked, as it seems to be the case now. As these skills could neither be learned casually nor easily by many teachers, rigorous teacher training and licensing systems, in the skills, could be strongly recommended from this study.

(NOTE: This research is still in progress; its salient designs and procedures would be stated in the future). Bokko, Tel: 0911113856, Addis Ababa, Ethiopia

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### **An Investigation in to selected factors on academic self concept among primary school pupils in Bondo District, Kenya.**

by Dr Jacinta Aswani Kwena, Kenya  
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PhD Thesis, Kenyatta University

#### **ABSTRACT**

The study investigated some factors that influence academic self-concept of primary school pupils. Specifically, absenteeism and class retention patterns were investigated. Academic self-concept of the pupils as influenced by absenteeism, class retention, teacher ratings and academic achievement was studied. Further, it looked at how some home and school related factors were associated with academic self-concept of the pupils.

It was a survey study that employed the ex- post- facto design. The study was guided by the Symbolic Interaction Theory (Mead 1934).

The study was conducted in Bondo district of Nyanza province, Kenya. Stratified sampling was used to come up with 5 schools used in the study. All the pupils in classes 2- 4 and 6- 8 participated in the survey. The sample included 5 head teachers, 29 teachers and 927 pupils (497 males and 475 females) the pupils' mean age was 11.9 years with a range of 6 to 20 years.

Research instruments included: questionnaires, school records, academic self- concept ladders, teacher rating scales and 2006 KCPE results. The pupils' questionnaires and academic self-concept ladders were group administered in the respective classes by the researcher with the assistance of the class teachers. Teachers' questionnaires were dropped in the respective schools and picked after 2 weeks.

Statistical Package for Social sciences (SPSS) was used to analyze quantitative data. All the hypotheses were tested at  $P \leq .05$  level of significance.

According to the findings, pupils in the sample had higher academic self-concept in the subjects tested Pupils in the lower classes had significantly higher academic self-concept than those in upper classes; class by class analysis indicated that girls tended to have higher self-concept in lower classes but this changed as they moved to upper classes.

Nevertheless, in the upper classes, the girls still maintained higher self- concept in languages than the boys who led in mathematics and sciences. Academic self-concept was found to be positively related to teacher ratings and negatively correlated to absenteeism and class-retention. A significant positive relationship between academic self-concept and academic achievement was

observed only at standard 8. In other classes, there was no consistent pattern in the relationship.

In a multiple correlation analysis to find out which of the variables in the study would be fitted to a model to predict academic self concept academic achievement emerged as the best positive predictor of academic self-concept. With age factor included in the model, age became a major negative predictor of academic self-concept at standard seven.

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### **Language Practices in Primary Schools in Nairobi: the Teachers' Perspectives**

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Master's Thesis in Special Education,  
University of Jyväskylä, Department  
of Educational Sciences, 2010.

#### **ABSTRACT**

Literacy is facilitated by the readiness to comprehend fluently written language and this requires accurate and fluent basic reading skills, good mastery of the language to be read and a lot of practice in reading the particular language. Basic reading skills involve the ability to pronounce written words accurately and this requires appropriate teaching instructions in a language most familiar to the pupils. Research has found that learning to read in transparent languages such as Kiswahili is easier than learning to read in English.

For this reason the Ministry of Education in Kenya through the Kenya Institute of Education requires that the pupils be taught early reading instruction in a language that is most commonly

spoken to them in their local communities. In addition the schools are required to emphasize the use of the language most familiar to the child in the classroom and within the school so as to facilitate better comprehension when learning reading.

In Kenya English is used as the official language of communication and Kiswahili is considered to be the National language. Nairobi being a multilingual province provides a setting where both these languages are used and consequently in the schools opaque and transparent alphabet codes and analytical and synthetic teaching methods collide. The aim of this study was to see whether the practices in the schools reflect the recommendations on language use for early reading instruction and whether the schools encourage the use of the most commonly spoken local language. A questionnaire was distributed to 221 teachers from 30 schools across Nairobi. The teachers were from public, primary and in community schools which are the three main categories of schools in Kenya. The teachers were required to answer questions concerning the language of reading instruction, language use in class and outside class within the school as well as give their view on the general performance and preference of the pupils between English and Kiswahili.

The results indicate that there are conflicting practices with regard to language of early reading instruction and language use in the schools which have resulted from both English and Kiswahili being working recognized languages in Kenya. Therefore the schools especially the public and community schools in Nairobi are not able to adapt Kiswahili exclusively for reading instruction

as is recommended by the Ministry of education.

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### **Ordinary teachers' attitudes towards teachers who teach intellectually disabled children in selected Lusaka District Schools**

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Master of Education in Special  
Education thesis, University of  
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#### **ABSTRACT**

The purpose of the study was to investigate the attitudes of ordinary teachers towards teachers who teach children with intellectual impairments in Lusaka District schools in Lusaka Province.

Data were collected through interviews and questionnaires from a sample of 10 head teachers and 55 ordinary teachers selected to accurately represent the population under study.

The study found out that the attitudes of head teachers and ordinary teachers towards teachers of the intellectually impaired children varied. Some showed positive attitudes and perceived these teachers as hardworking, tolerant, creative and caring. On the other hand, some head teachers and ordinary teachers perceived the teachers of intellectually impaired children to be emotional and that they tended to think and behave like the children they taught. These negative attitudes exhibited towards the teachers of intellectually impaired children could partly be attributed to the anti-social behaviour of as in most cases the teachers tended to isolate themselves from the others.

The study also revealed that the teachers who taught the

intellectually disabled children were stigmatised by other teachers who called them all sorts of names such as "teachers of fools, teachers of imbeciles, teachers of idiots, teachers of mad children, teachers of lunatics" – associating them with the behaviour of the children they taught which in due course had a negative bearing.

Suggested measures by respondents to change the negative attitudes towards the teachers of the intellectually impaired children included: organising regular seminars and workshops on Special Education Needs (SEN) for both head teachers and ordinary teachers in schools; conducting in-service short courses in special education for both head teachers and ordinary teachers in schools; involving both the ordinary teachers and the teachers of the intellectually impaired children in all school activities and sensitizing both the ordinary teachers and the teachers of the intellectually impaired children to understand that they possessed the same qualifications and no one was inferior to the other. The Ministry of Education should introduce a department of education for children with intellectual disabilities in all colleges of education so that graduates from these colleges would have knowledge of teaching the children with intellectual impairments.

*Note: A big thank you for all those authors who took time to submit their research abstracts. Each author is responsible for the abstract's content and can be contacted for further information at the emails provided.*

## **A POINT OF VIEW - THE FACE OF LEARNING DIFFICULTIES IN AFRICA: A CASE FOR RESEARCH** by Mr. KELLY MULENGA

The field of learning difficulties (LD) in Africa has been over the years consistently modelled along American and European theories and ideas. A growing body of researchers and scholars on the continent are now advocating that there is a critical and fundamental need to re-evaluate these Western ideas that have influenced the way LDs are identified, assessed and consequently treated in Africa (Sternberg, 1998; Mulenga, Ahonen, Aro, 2001).

Various issues influence and permeate research issues on LDs in Africa. Different educational practices, cultural diversity (Jalaludin, 2002), ecological demands and language all play various roles. Further, normative data makes it very hard for various researchers to carry out comparative studies that are highly needed to drive the practice of LDs. As there is no clearly mandated research model, LD programmes have not developed consistently within African countries and in general across most of the continent. Most existing programmes tend to be mere copies of some Western practices. Some countries such as South Africa have however, led the way in developing systematic programmes for LDs with many Sub-Saharan countries lagging behind. Differences in the way LDs are defined and perceived within countries and across the continent are abundant. For example in most Zambian special schools, LD is a label generally applied to children with intellectual disabilities such as mental retardation. With the

transparency of most African languages it can be assumed that age-level reading scores can be achieved within a term of reading instruction, but this alarmingly remain an elusive goal despite clear literacy goals. One can erroneously presuppose that all those school-age who are unable to read or write are eligible for special education. This is a clear call for research.

In May, 2000 meeting by a group of American researchers, parents, policy makers and policy providers suggested a new definition of LD. LD was described as intrinsic to the individual, CNS based, observed in a variety of cognitive processing difficulties and academic achievement areas, different from mental retardation, persistent over time and evident across all social and economic groups. They further pointed out that LD cannot be explained by lack of opportunity or poor instruction. More importantly, they said LD may be improved through appropriate intervention (Halahan & Mercer, 2001).

The characteristics of LD from the May 2000 are probably the most used world – wide to define, assess and identify children with learning difficulties. However, the definition raises a number of important research and quality questions within the African context.

Firstly the definition contends that an LD is within (intrinsic) the individual thus excluding environmental factors. Research world wide is consistent in

pointing out the importance of external factors in academic achievement.

Thus, the language spoken at home, the language of instruction, social – economic status, health factors and nutrition may all play important roles in defining an LD. After all, it is well documented that certain environmental conditions create life – long central nervous system changes that may put an individual at risk of developing an LD. Investigations are essential in this area.



Mr Kelly Mulenga

Secondly there is the flawed ability – achievement discrepancy approach. This basically draws on the difference between an IQ score and actual school performance. It is well known that IQ measures do not work well in African due to huge cultural and ecological differences. It is to belabour the point to start writing about why IQ tests do not reflect true ability in Africa. LDs are heterogeneous and thus to identify the LD population using a single IQ score and some specific achievement measures in possibly reading, spelling or arithmetic renders the point of heterogeneity unlikely.

Given the inadequacy of IQ tests and the use of a few achievement scores, there is need to look at other measures that truthfully and fittingly reflect the diversity of the LD population.

Besides, there is no universally acceptable discrepancy level. What may be considered discrepant performance might not be so in another country, province, or school. Further, IQ tests provide little reliable information for planning, implementing and evaluating intervention programmes (Gershman, 2001). The diversity of the African population further precludes the use of ability – achievement discrepancy approach due to non-representation in norming samples.

An acceptable research based model of LD in Africa must be an alternative to the ability-achievement approach. It must allow for greater teacher judgment of an individual pupil's needs in order to provide adequate academic support (The BASAT has room for teacher-based decisions) based on research. This model should also assist teachers develop appropriate research proven intervention measures for the LD pupils. The model should have also the ability to model academic growth by taking into account environmental factors, population diversity and the nature of the spoken language at home and school. The model must also address issues of orthography whether it is opaque as opposed to transparent (Aro, 2004). The IQ issue is a grave one but the adapted African model

can attempt to look at other ways of measuring cognitive processes. For example working memory and phonological processing are stable cognitive measures and can be employed to help identify the LD pupil.

In nutshell this article is not about reinventing the wheel but an attempt to try to stir the ever thorny issue of how we should define, identify and treat LDs in Africa. It is a look at what research has done, what needs to be done, clarified and investigated. The article briefly looks at the major issues dogging LD in Africa and tries to reflect on the importance of remediation, the role of the environment, and the applicability of the ability-achievement model.

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### EDULINK Pediatric Neuropsychology and Learning Disabilities workshop, 25-29 January 2010, Nairobi, Kenya

The third workshop of EDULINK *Education for Children with Learning Disabilities: African-European Co-operation for Promoting Higher Education and Research* was held in Nairobi, in the end of January 2010. The project brought again participants from Kenya, Namibia, Zambia and Finland together to discuss and share experiences in setting up learning difficulties assessment centers and the practicalities of assessment in a multicultural settings.

A key speaker Dr Jaana Ahonniska Assa, a Finnish clinical neuropsychologist currently residing in Israel talked about the neuropsychological features of traumatic brain injury and cerebral palsy (CP) and the influence of plasticity on brain development.



Dr Jaana Ahonniska-Assa

She also discussed and highlighted the neuropsychology of these common neurological disorders in childhood. She also shared her experiences of assessment in a multicultural context and using centers in student practical trainings.

Mr David Kariuki from Kenyatta University gave a presentation on the assessment center in Kenyan setting. Additionally, Kenyatta University representatives from various departments gave presentations on how they are currently addressing learning difficulties and what research has been conducted in the area of learning disabilities and special needs. During the week the participants also had an opportunity to visit Gertrude's hospital, Thika School for the Visually Impaired and Lavington School for Children with Learning Disabilities.



In addition to the presentations and visits time was allocated for project discussions and meeting. The next workshop will be held in July, in Lusaka, Zambia in conjunction with the ISSBD conference.

## OTHER NEWS

### PhD degree awarded

Ms Beatrice Matafwali, from the University of Zambia, EPSSE successfully defended her PhD thesis in a sandwich programme between Leiden University, The Netherlands and University of Zambia. The title of her PhD thesis is *"The role of oral language in the acquisition of early literacy skills: a case of Zambian languages and English."* Congratulations Dr Matafwali!

### Research Grant

Prof Heikki Lyytinen, Agora Center, University of Jyväskylä, Finland has received a 3 year research grant from the Finnish Academy. The research concentrates on the reading acquisition in local Zambian languages. For further information, please email [heikki.lyytinen\(at\)psyka.jyu.fi](mailto:heikki.lyytinen(at)psyka.jyu.fi).

### Anniversary

Niilo Mäki Foundation celebrates its 20 year anniversary in September 2010. The Foundation set up by Mama Mäki, Professor Timo Ahonen and Professor Heikki Lyytinen continues its valuable work in the area of learning difficulties.

## FORTHCOMING EVENTS

### The Biannual International Society for the Study of Behavioural Development (ISSBD) conference, Lusaka, Zambia in July 2010

The 21<sup>st</sup> biannual international conference will be held on 18-22 July 2010 at the Mulungushi Conference Center. The conference will feature 20 internationally renowned speakers from 12 different countries and 12 invited contributors at the symposia. For further information, contact [jacqueline.folotiya\(at\)unza.zm](mailto:jacqueline.folotiya(at)unza.zm).

### 4<sup>th</sup> EDULINK project meeting in Lusaka, Zambia

The cooperating partners of the EDULINK project *Education for Children with Learning Disabilities: African-European Co-operation for Promoting Higher Education and Research* will meeting in conjunction with the ISSBD conference. The theme of the 4<sup>th</sup> meeting is Attention Deficits and Emotional Barriers to Learning.

### Newsletter details

The Newsletter is a joint publication of Niilo Mäki Institute, Finland and EU funded Edulink project. The aim is to provide a forum to network and exchange knowledge on learning difficulties. Niilo Mäki Institute has been working in Africa for 20 years, providing neuropsychology training for education professionals in the continent. The Newsletter links partners and colleagues from previous and present NMI Africa projects. The aim of the Edulink project is to enhance the skills and knowledge of educationalists in the area of learning disabilities.

We are always looking for contributions, articles and comments for next issue. Those interested in contributing to the next issue, please contact:

Emma ([emma.ojanen\(at\)nmi.fi](mailto:emma.ojanen(at)nmi.fi)) or Pia ([piakrimark\(at\)yahoo.co.uk](mailto:piakrimark(at)yahoo.co.uk)) by **OCTOBER 2010**.



Funded by the  
European Union



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