

Mathematics and Science results at secondary school level has long been a cause for concern. A new study, commissioned by the Department of Science and Technology (DST), has examined the proliferation of out-of-school programmes that provide extra tuition in these core subjects.

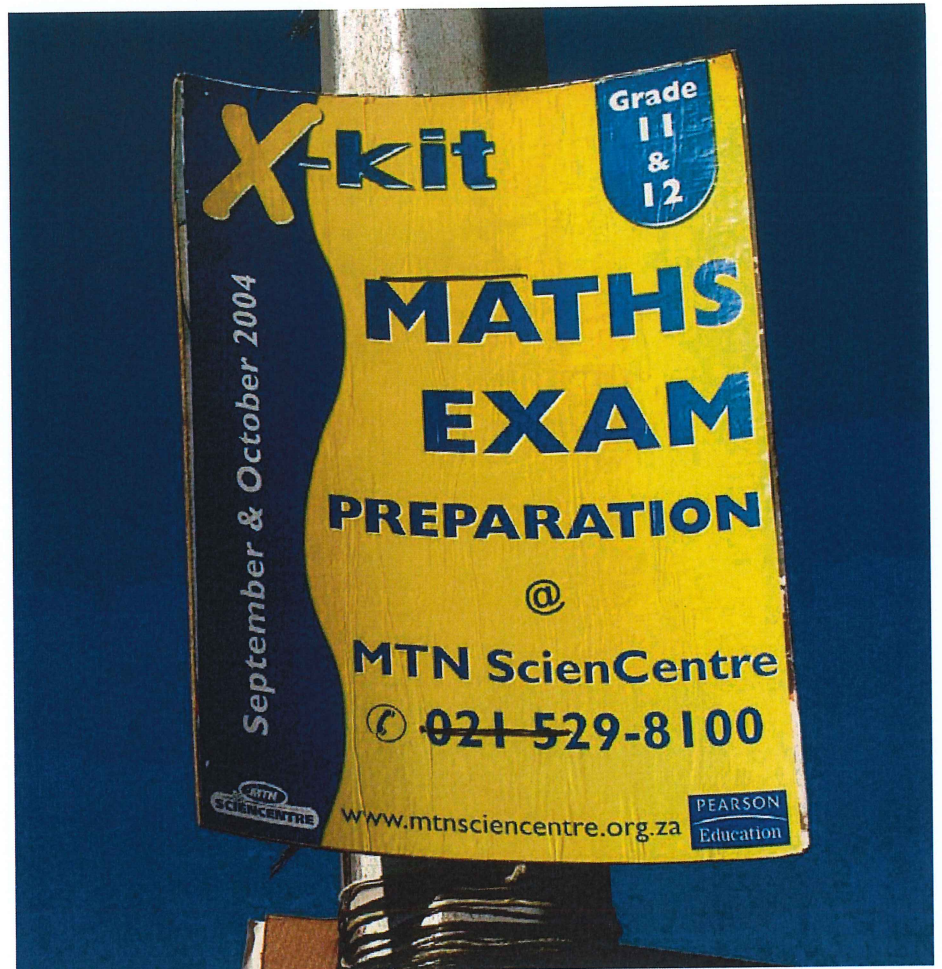
Many learners and parents, concerned about the quality of input from the formal schooling system, have participated in these programmes.

The DST is considering supporting out-of-school interventions as a strategy to improve Mathematics and Science performance at the school level. They commissioned the HSRC to assess the extent, nature and cost of out-of-school interventions in Mathematics, Science and Computer studies for secondary school learners as research into this area of work is limited.

Out-of-school programmes are also referred to as “private” or “supplementary” tuition. It is largely an independent initiative that exists alongside the public schooling system and hence has often been referred to as a “shadow” of formal public schooling.

An area of concern is that private supplementary tuition may worsen social inequalities and interfere with educational processes in the mainstream educational system.

The study found that as many as 70 000



SCHOOL'S OUT... OR IS IT?

By Vijay Reddy
and Likani Lebani

Out-of-school interventions for Mathematics, Science and Computer studies for secondary school learners

learners are already using the services of this fast-expanding sector.

Organisations offering out-of-schools programmes include private sector organisations, franchises, online instruction, instruction on television, non-governmental organisations and the Department of Education (DoE) in partnership with service providers and outreach programmes attached to universities and technikons. Geographically, a number of programmes are located in areas of high population densities with a strong focus on metropolitan areas.

The province of Gauteng has the majority of providers (30%) followed by KwaZulu-Natal (15%) and Limpopo (15%). The other provinces account for the balance. It is noteworthy that a majority of initiatives focus on

Grade 12, and the number of learners per provider tends to increase from Grade 10 through Grade 12.

There are more out-of-school programmes in Mathematics and Science than in Computer studies. Most computer programmes focus on general computer skills. A significant number of providers are also providing extra tuition in business-oriented subjects, such as Accounting.

The type of providers rendering private tuition is diverse. It is largely defined by how the organisation/institution is legally constituted and how it conducts its business. A broad classification of providers includes non-governmental organisations, like Protec, newly-established community-based organisations that operate in small towns, individuals,

and private-sector organisations that offer services on a for-profit basis. Business-oriented programmes are more often linked to corporate organisations and former teachers. Other programmes include international franchises (e.g. Kumon Math which attempts to support the school curriculum, operates in urban areas and is market-driven).

Online instruction tends to be limited to those learners with access to computer facilities. The same applies to TV-based instruction channels. One form of supplementary tuition in South Africa, unlike in other countries, is involving collaboration between provincial DoEs and private providers. An example is the KwaZulu-Natal DoE and Pulse Education Services initiative, which provides out-of-school tuition to Grade 12 learners.

Tertiary institutions, especially universities, also provide enrichment programmes to high performing learners and as such tend to target small groups. The University of Pretoria, for example, drives a programme that extends over a three-year period.

The type of programmes offered by most providers is linked to the school curriculum and measures performance in terms of their ability to contribute towards the matriculation pass rate. Smaller programmes operate more on a help-desk scenario where tutors are available to answer learners' problems or assist with homework exercises.

In a few instances, the provider works with a few learners, who in turn tutor other learners (peer tutoring). Tutors in most programmes are practising schoolteachers.

Other providers utilise Science graduates, university students, or workplace professionals, especially accountants and engineers. Franchise operations prefer tutors who do not necessarily have a Mathematics or Science background but who are able to facilitate and who generally have good business acumen.

Tutor payment varies per provider. The more established providers pay their tutors on a regular basis. The smaller operations have volunteer tutors who are reimbursed their travel costs or are given a stipend as and when learners make payments.

The cost to the learner also varies from one provider to the next, but most providers charge a fee. A number of providers offer free services but have numerous sponsors in the form of banks, the corporate world and foreign donors. The majority of small-scale providers struggle with funding and tend to be limited in the range of services they provide in terms of teaching tools and the total number of learners they can accommodate. Higher costs are associated with private-sector franchises.

One certainty is that this sector is here to stay. The issue is how the DoE and the DST can enhance and support this sector so that the quality of Mathematics and Science can improve. In addition, with a growing number of service providers, there needs to be some form of regulation and quality control to ensure that learners receive quality instruction and are not exploited.

Dr Vijay Reddy is the Director of Assessment Technology and Education Evaluation Research Programme and Likani Lebani an intern. For a copy of the report, School's Out...Or Is It? Out-of-school interventions for Mathematics, Science and Computer studies for secondary school learners by Vijay Reddy with Likani Lebani and Candace Davidson, please e-mail media@hsrc.ac.za.

Profile



**Executive Director,
Employment and Economic
Policy Research (EEPR)**

By Reneé Grawitzky

Dr Miriam Altman is an unusual combination of practical, real-world experience and deep intellectual economic thinking. It is therefore difficult to pigeon-hole her, as none of the usual labels like “academic”, “manager”, “activist” or even “economist” properly describe her. One colleague ventured that “she is a rain-maker”.

The contexts of her activities range from human rights activism and community development to high-level national policy formulation on employment and industrial transformation. Her mix of practical and intellectual experience enables her to bring special insights into her economic strategy work. She is not satisfied to merely engage in policy-directed research, but is driven by the desire to facilitate and engage in processes to ensure that research ultimately impacts on the lives of ordinary people.

Altman draws on close to 20 years involvement in employment and industrial policy and strategy work coupled with a strong focus on stakeholder facilitation. She studied for a BA in Economics at McGill University in Montreal, and subsequently completed an MA and PhD in Economics at the Universities of Cambridge and Manchester in the UK, respectively.

She lectured at the University of Witwatersrand in the Department of Economics, and then went on to co-ordinate the Economics Programme at the Wits Graduate School of Public and Development Management. There she managed and lectured on the graduate economics courses and also established a specialist professional programme offering tailored courses to Government and parastatals.

The HSRC became an obvious choice for Altman as it gave her the opportunity to combine her deep commitment to both policy and strategy processes.

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Miriam Altman

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She established the Employment and Economic Policy Research (EEPR) Programme in February 2002, as part of the HSRC's transformation process.

Focusing on improving the balance of economic gains, particularly for marginalised communities, can be identified as the common theme to her work over the past 20 years. In particular, her work explores the economic impact of extractive industry on society and livelihoods. Altman's research relates to global thinking about how economies dominated by mining and oil tend to be structurally biased toward capital intensive industries and high inequality – resulting in social exclusion and unemployment. This has been called “Dutch Disease” or the “Resource Curse”. She has extensive experience in applying this thinking to shaping policy that addresses the need to integrate economies and enhance access to opportunity and livelihoods.

In the early 1990s she was involved in research and strategy for the trade union movement. In 1990, Altman worked with the SA Clothing and Textile Workers Union (SACTWU) to establish a research programme that would enable it to frame strategy in relation to expected changes in the regulatory environment – focusing on trade, business and labour regulation.

This was one of the first projects of its kind, supporting SACTWU's vision of moving from the politics of the 1980s, into the high-level tri-partite negotiations that would ultimately become possible in the 1990s. This research was later incorporated into the Industrial Strategy Project (ISP), which was initiated by the Congress of South African Trade Unions (Cosatu). It is still regarded as one of the most critical interventions in the policy arena pre-1994.

In the post-1994 period, Altman turned her attention to economic advisory support to the new Government. Key themes in this work related to the structural underpinnings of unemployment. She has worked with most of the economic departments in areas relating

to labour, human resource development and industrial policy.

Altman sees economic and social balance as not simply being a function of a set of economic variables, but also as requiring high-level compromise and institutional solutions. This view underpinned her work in the Presidential Jobs Summit in 1998. The Department of Labour had appointed her as Programme Manager for the summit from 1997. In that process, her aim was to draw the parties closer together around a “common language and dialogue about the causes and possible cures for structural unemployment”. Most of the themes agreed on at the Jobs Summit underpin the current work of the Employment and Economic Policy Research Programme at the HSRC.

The Employment and Economic Policy Research Programme focuses on understanding and addressing the complexities of employment and unemployment. The first challenge is to understand employment trends, and in this vein, Altman has introduced groundbreaking work. Along with Dr Ingrid Woolard, and under the review of an expert panel, the EEPR has produced important new work that begins to question many current assumptions about employment trends and South Africa's development path.

The second challenge is to identify strategic policy levers to raise the capacity of the economy to absorb labour. Altman believes that the economic imbalances will be addressed through a combination of labour, industrial and macro-policy interventions.

The third challenge is to locate strategic partnerships to shift the levers in the required direction.

She has had the chance to test a number of ideas practically in her capacity as Convenor of the Economic Programme in the Alexandra Urban Development Project, on behalf of the Gauteng Department of Housing. Altman is responsible for the strategic direction and oversight of implementation of the Alexandra Renewal Project's Economic Programme

which currently has an annual budget in the region of R25 to R50 million, in addition to private finance for various site developments. In this programme of work, she has been able to further ideas on integrating township economies into the wider urban fabric, in this case aligning it to the Joburg 2030 vision.

According to Altman, Government has provided a useful benchmark against which to measure its success in its aim to halve unemployment by 2014. She has therefore established a project to frame “evidence-based employment scenarios”. These scenarios will use the best available evidence on labour supply and demand to chart a path to this objective.

A critical component of Altman's work from the late 1980s onwards has been her ability to engage, consult and facilitate discussions within different government departments and/or between different government, business or labour stakeholders. The need to ensure different constituencies are either kept informed or involved constitutes an important part of the work she is engaged in at the HSRC. Her approach is critical to achieving her vision of building EEPR into a premier think-tank on employment issues.

Altman ultimately believes that the EEPR can play an important role amongst a network of other organisations committed to developing policy positions around employment and economic policy questions. As part of such a network, Altman believes it is crucial that there is an improved flow of ideas between policy-makers from Government, institutions, business and the academic community. With her level of commitment and passion achieving this does seem possible.

She lives with her partner, Leslie Maasdorp and stepson Mikhail. They have been together since meeting in 1993 while participating in the ANC's Macro Economic Research Group. Outside of work, her passions include hiking, music (with eclectic tastes running from jazz to hip hop, soul and classical). And, depending on the pressures of work, she turns her attention to her artwork, which these days mainly involves figurative drawings in pencil and charcoal. •

Ms Renée Grawitzky is Editor of the South African Labour Bulletin.

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review



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