2011

TECHNO GIRL CONCEPT DOCUMENT

TechnoGirl

Experience.Learn.Grow

TABLE OF CONTENTS

ABOUT THE PROGRAMME

1.1 BACKGROUND

Though the situation of girls and women in South Africa continues to be challenged by the legacy of apartheid, the government is committed to the long-term goal of transforming the country into a non-racist, non-sexist, democratic nation. Key challenges include addressing disparities (primarily along rural/urban, racial and gender lines), aggressively growing the economy, and efficiently implementing programmes that address inequitable service provision. Children, living in poverty, orphaned or vulnerable remain at the margins of this social transformation.

The gender analysis and Evaluation of Girls' Education study also revealed that girls perform poorly compared to boys in Math, Science and Technology. It is noted that fewer students especially girls, study math, science and technology at both secondary and tertiary levels.   This has major implications later in the girls' lives, as they have fewer career opportunities, and get relatively lower paying jobs.

The latest research indicates that redressing gender inequality in South Africa is an economic imperative. This assertion means that gender bias directly affects economic growth. This is because the majority of South Africa's population is women. By implication, gender stereotyping therefore translates to limitations on the income of a large part of the population. Research further indicates that this effect may have reduced economic growth by up to 0.3% in South Asia and Sub-Saharan Africa.

Yet this tendency is not in the process of correcting itself. A report in "The Citizen" of 02 September 2009, citing the MasterCard Worldwide Index of Women's Advancement Index, claims that socio-economic inequality between men and women in South Africa is increasing. In this survey, South Africa's score declined by five points from 90.6 to 85.7 from 2008 to 2009. According to the authors, a score below 100 indicates inequality in favour of males. Key findings resulting from the survey are that:

fewer women are participating in the labour force in 2009 as compared to 2008;
fewer women consider themselves to be in management positions in 2009; and
women's perceptions on their income levels have deteriorated.

Other studies conducted recently corroborate this state of affairs. For example, the Business Women's Association census found that there are fewer women executive managers in 2009 than the previous year.   The situation is even more dire for black women, who have to not only deal with gender stereotypes but must also face the consequences of years of race stereotyping.

Expanding choices for people and creating equal opportunities are essential ingredients for sustainable human development. This applies in particular to the women and girls in our society.   For a large majority of girls the fast-paced, modern work environment contrasts starkly with their everyday lives. Exposure to the world of work is usually limited to teachers and other adults they have exposure to in their immediate environment.

As a response to these challenges, the Department of Education, in partnership with UNICEF, piloted the Techno Girl programme in Limpopo, Eastern Cape and KwaZulu-Natal provinces. Uweso Consulting conceptualised the Techno Girl programme in 2004 and was subsequently appointed to support these provinces on implementation and mobilisation of public and private partners. Provinces participating in the Techno Girl programme are Gauteng, Limpopo, North West and Kwa-Zulu Natal.

Courtesy of the Techno Girl programme, some of these girls now have an opportunity to gain first hand insight into the buzz and excitement of running a big enterprise and how the maze of operational divisions co-operate to make it tick.

Techno Girl aims to provide girls with access to the world of work to enable them to take up scarce careers required by the economy. The programme maintains an exclusive focus on careers in the Maths, Science and

Technology (MST) fields. During their tenure at organisations over the school holidays, the girls are exposed to various career paths and options through job shadowing of role models.

This document provides more information on the implementation the job-shadowing programme.

1.2 Programme Goal

To place 4000 disadvantaged girls in a structured job-shadowing programme in the participating provinces and expose them to the world of work so that they can make informed career choices.

1.3 Programme Objectives
- To expose girls, through job shadowing, to the world of work during school holidays
- To increase the knowledge of girls on careers they are exposed to
- To increase awareness of the importance of subject choices to future career preferences
- To expose girls to mentors in the workplace for particular careers
- To expose girls to practical job tasks in the workplace for particular careers
- To increase knowledge of girls on the planning processes of their future career choices

1.4 HOW THE PROGRAMME WORKS

1.4.1 Why job shadowing?

The South African government has prioritised halving poverty and unemployment by 2014 and as part of putting impetus to achieving this goal, the Accelerated Shared Growth Initiative for South Africa (ASGISA) was launched in 2006. Through ASGISA government has identified that there needs to be intervention in the following six categories:

- infrastructure programmes
- sector investment (or industrial) strategies
- skills and education initiatives
- second economy interventions
- macro-economic issues
- public administration issues.

The greatest impediment for both the public infrastructure and the private investment programmes, is shortage of skills – including professional skills such as engineers and scientists; managers such as financial, personnel and project managers; and skilled technical employees such as artisans and IT technicians. In response to this challenge, AsgiSA established the Joint Initiative for Priority Skills Acquisition (JIPSA) to raise the level of skills in areas needed by the economy.

Job shadowing is therefore driven by the requirement to provide girls with access to the world of work in MST careers identified by ASGISA and are a priority for JIPSA. This is particularly necessary for the girl child who traditionally is not exposed to these scarce careers and females in influential positions.

Girls are therefore placed in organisations whose core business activities are focused on scarce career fields and/or occupations were women are under-represented such as engineering, construction, forensic sciences, etc.

1.4.2 Critical success factors for job shadowing

While contexts and target groups may be different, there are basic principles needed to inform conceptualisation and implementation of Job Shadowing. The following principles are meant to assist in defining job shadowing to ensure success of the programme:

- Job Shadowing has to be located and informed by the values and culture of an organisation
- A clear definition of purpose, objectives and outcomes of the Job Shadowing programme
- Establishment of partnership
- Determination of the impact of Job Shadowing
- The partnership is mutually beneficial to both the learner and the organisation

### 1.4.3   Benefits

For the girl child:
- it provides girls with first hand insider information into what their career of interest involves;
- it provides girls with the opportunity to understand the benefits and challenges of positions in those careers;
- it motivates girls to develop a personal action plan to study further to secure a job of interest;
- it helps girls gain valuable insight that can assist them in determining where their interest lies;
- it provides girls with an understanding of Mathematics as a prerequisite to pursue studies in most critical careers;
- it enables girls to learn and observe team work on the job;
- it enables girls to examine how education and training relates to success on the job;
- it enables girls to understand that education is key to getting a job;

For the Company:
- it contributes towards the achievement of BBBEE scorecard compliance
- it provides companies with a platform to build corporate reputation and branding
- it provides companies with a pool of girls whom they can motivate and support to pursue studies in careers where they experience critical skills shortages;
- it provides companies with a pool of talented girls they can offer employment to after completion of grade 12
- it provides companies with an avenue to participate in the development of human capital to enhance economic growth
- it provides companies the opportunity to partner with Government to address socio economic challenges

1.4.4   Implementation

To be effective and have meaningful impact, a Job Shadowing programme cannot be a once-off activity. It has to be approached on a long-term, structured and systematic basis. Typically, we envisage the girl child being placed within a company for three consecutive holiday periods annually over a period of four years. For example:
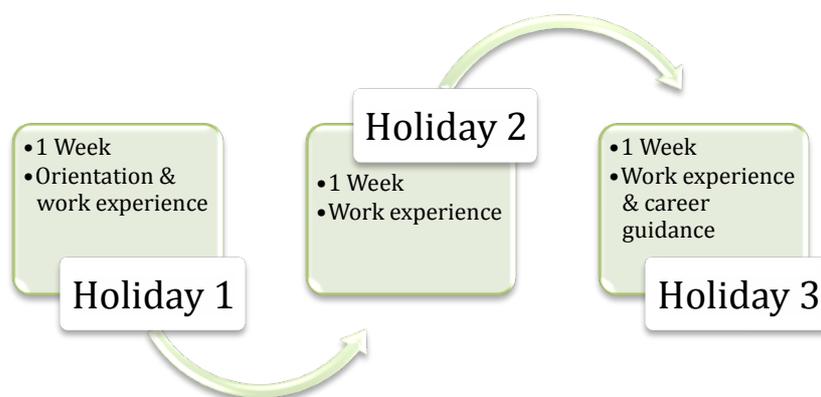
The above cycle repeats over a four-year period, i.e. A girl will enter the programme whilst entering Grade 9, continue the programme during Grade 10 and 11 the following two years and exit upon completion of Grade 12. It is essential to properly plan for the intake of girls according to the internal policies and processes of companies. Prior to placement of the girls in a company, an orientation session for girls and the participating companies is scheduled to explain the purpose, objectives, conduct and behaviour guidelines, etc. Job-shadowing co-ordinators will be invited to attend the orientation sessions, although attendance will not be compulsory.

1.4.5   POST JOB-SHADOWING

An internal monitoring programme is implemented after each intake. It focuses on the monitoring of programme processes/implementation and programme outcomes. The process monitoring measures the programme activities and conditions critical to effective performance of the programme. Furthermore, it seeks to measure whether the programme activities are sufficient, appropriate and delivered to a common standard. The process monitoring focuses on the following:

- What is the programme coverage (are intended services delivered to indented beneficiaries)?
- Are the services delivered in accordance with the workplans?
- Are the resources allocated (staff, budget, etc) sufficient and used optimally?
- Are the targeted numbers of beneficiaries reached?
- Are the programme stakeholders aware and participating in the programme?
- What are the attrition rates?
- What are the demographics of both in-programme beneficiaries and those who dropped out?
- Is the programme delivered the same way across all provinces?

The programme outcome indicators are used to measure whether the programme is on course to deliver the intended effects (outcome monitoring). The monitoring of short-term/medium term outcomes concentrates on the following among others:

- The extent to which girls have acquired knowledge and understanding of the world of work.
- The extent to which girls have acquired knowledge and understanding of the skill requirements of the careers they were exposed to.
- The extent to which girls have acquired knowledge of in-demand careers required by the job market.
- The familiarity of girls with the entry requirements of in-demand careers.
- The success of the programme to increase awareness of the importance of subject areas to future career choices.
- The extent to which girls demonstrate appropriate behaviour in the workplace.
- The extent to which girls regard mentors as role models.
- Increased awareness of the job outputs of various careers and whether these suit their personal preferences.
- Girls' ability to identify preferences for particular careers.
- The extent to which girls have increased knowledge of planning processes relating to their future careers.

1.5 BBBEE SCORECARD COMPLIANCE

The programme can also strengthen the BBBEE scorecard compliance of participating job-shadowing partners. Of the eight levels of recognition speficied in the BBBEE scorecard, the Techno Girl programme can contribute toward the following:

1.5.1   Employement Equity

Over the medium - and long term, participating companies will have access to a pool of black women qualified in scarce career fields as a result of the programme. This will enable companies to leap frog the current under-representation of black women in scarce and in-demand career fields.

1.5.2   Skills Development

The Techno Girl programme is implemented through a structured job-shadowing programme. Furthermore, participating companies and girls are required to complete job-shadowing reports articulating the knowledge and skills acquired through the programme. Therefore companies can include the Techno Girl programme in their annual training reports in compliance with BBBEE requirements.

1.5.3   Socio Economic Development (Residual)

The programme exlusively targets disadvantaged black girls and it aims to increase their uptake of scarce skills required by the economy. The programme therefore results in improved employability of these girls. Participating companies can therefore include the Techno Girl programme as a contributor towards their socio economic development programmes.

PARTNER ROLES AND RESPONSIBILITIES

2.1   UWESO CONSULTING
- Overall programme management
- Business partnership mobilisation
- Stakeholder management
- Positioning and branding of programme
- Mobilise companies to participate in the programme to increase girl intake annualy
- Mobilise funding from companies to fund programme costs and learner stipends
- Conduct orientation of selected girls and participating companies
- Submit monitoring reports
- Design and manage database of participating girls and companies
- Oversee staging of stakeholders year end event
- Disburse girls stipends for travel and lunch to companies, where applicable
- Organise, in consultation with provincial departments of education, review meetings
- Develop and implement a monitoring and reporting system

2.2   PROVINCIAL DEPARTMENTS OF EDUCATION
PROVINCIAL CO-ORDINATORS
- Provide overall programme leadership
- Overall management of district and school participation in the Techno Girl programme
- Identification and appointment of programme co-ordinators
- Provide support to district office co-ordinators to implement Techno Girl programme
- Facilitate the co ordination of the programme
- Liaise with stakeholders on programme issues and arrangements
- Co-ordinate selection of girls
- Co-ordinate attendance of girls to orientation
- Facilitate the transport of girls to orientation
- In partnership with the relevant district office conduct briefing and awareness sessions with participating school principals, co-ordinators, participating girls
- Participate in the review meetings
- Submission of programme documents before and after each job shadowing intake
- Attend review sessions
- Facilitate attendance of girl learners to career guidance sessions, where applicable
- Submission of girl profiles selected according to criteria to participate in Techno Girl programme
- Actively promote the Techno Girl programme in the provincial governments, municipalities as well as all the companies that provide services to the provincial governments;

2.2.1   DISTRICTS CO-ORDINATORS
- Facilitate the appointment of Techno Girl co-ordinators at all participating schools
- Selection of participating schools and girls according to set criteria
- Conduct briefing sessions of girls and principals
- Liaison with school and other district stakeholders
- Offer programme support to schools
- Collection and distribution of programme documents
- Participation in review meetings

2.2.2   SCHOOLS CO-ORDINATORS
- Co-ordinate selection of girls according to set criteria
- Liaison with girls and parents
- Collection and submission of participating girls job shadowing monitoring questionnaires
- Collation and submission of documentation for selection of girls to the District office
- Facilitate attendance of participating girls to all programme sessions

2.3   PARTNER COMPANIES

- Enter into a four year partnership agreement
- Provide job-shadowing opportunities to girls during school holidays
- Appoint a job-shadowing co-ordinator
- Attend orientation session with girls
- Assign mentors to girls in identified career fields for the duration of the job shadowing period
- Expose girls to technical areas of the business operations
- Assist learners by guiding them in choosing the relevant subjects and areas of study at tertiary level, as required by the chosen career (planning their higher Education phase)
- Prepare and submit post job-shadowing monitoring reports
- Pay each girl a stipend of R100 per day to cover travel and subsistence
- Develop and co-ordinate a structured job shadowing programme
- Brief divisional managers and supervisors on the placement and procedures of job-shadowing
- Submit the job-shadowing monitoring questionnaires and photographs of the girls after each intake

JOB SHADOWING PROGRAMME

It is imperative for the job-shadowing to be implemented in structured fashion to ensure the acquisition of knowledge and skills. Given the different context of organisations, partners are encouraged to design their job shadowing programmes along the following lines:

1st INTAKE PROGRAMME

Day 1

09:00 – 09:15	Introduction and welcome
09:15 – 09:30	Rules, conduct, safety and security
09:30 – 10:30	Overview of the company
10:30 – 11:00	Tea
11:00 – 12:30	Presentations by various company divisions on their business activities
12:30 – 13:30	Lunch
13:30 – 15:30	Company tour
15:30	Wrap-up and departure

Day 2

09:00 – 09:30	Meeting with job shadowing co-ordinator to reflect on experiences of Day 1 and assignment of girls to relevant divisions
09:30 – 09:45	Introduction to mentors
09:45 – 10:40	Discussion of a typical day on the job
10:40 – 11:10	Tea
11:10 – 12:40	Discussion of qualifications required and various careers in the division
12:40 – 13:40	Lunch Break
13:40 – 15:00	Job shadowing of mentor in division
15:00 – 15:30	Review of the day and departure

Day 3

09:00 – 09:30	Meeting with job shadowing co-ordinator to reflect on experiences Day 2
09:30 – 09:45	Girls meet with mentors in assigned divisions
09:45 – 10:30	Job shadowing commences
10:30 – 11:00	Tea
11:00 – 13:00	Job shadowing continues
13:00 – 14:00	Lunch break
14:00 – 15:15	Review of the day and departure

Day 4

09:00 – 09:30	Meeting with job shadowing co-ordinator to reflect on experiences Day 3
09:30 – 10:30	Girls are assigned to internet stations to research more about careers that they were exposed, including academic requirements
10:30 – 11:00	Tea
11:00 – 13:00	Continuation of research
13:00 – 14:00	Lunch break
14:00 – 15:30	Review of job shadowing experience, knowledge and skills acquired and indication of preferred career fields
15:30	Departure

2nd INTAKE PROGRAMME

Day 1
09:00 – 09:30   Introduction and welcome
09:30 – 10:00   Girls assigned to mentors in preferred divisions
10:00 – 10:30   Tea
10:30 – 13:00   Job shadowing, including job tasks
13:00 – 14:00   Lunch
14:00 – 15:00   Job shadowing, including job tasks
15:00 – 15:30   Review of job shadowing experience, knowledge and skills acquired
15:30   Wrap-up and departure

Day 2
09:00 – 09:30   Introduction and welcome
09:30 – 10:00   Girls assigned to mentors in preferred divisions
10:00 – 10:30   Tea
10:30 – 13:00   Job shadowing, including job tasks
13:00 – 14:00   Lunch
14:00 – 15:00   Job shadowing, including job tasks
15:00 – 15:30   Review of job shadowing experience, knowledge and skills acquired
15:30   Wrap-up and departure

Day 3
09:00 – 09:30   Meeting with job shadowing co-ordinator to reflect on experiences Day 2
09:30 – 10:00   Girls assigned to mentors in preferred divisions
10:00 – 10:30   Tea
10:30 – 13:00   Job shadowing, including job tasks
13:00 – 14:00   Lunch
14:00 – 15:00   Job shadowing, including job tasks
15:00 – 15:30   Review of job shadowing experience, knowledge and skills acquired
15:30   Wrap-up and departure

Day 4
09:00 – 09:30   Meeting with job shadowing co-ordinator to reflect on experiences Day 3
09:30 – 10:30   Girls are assigned to internet stations to research more about careers that they were exposed to, including academic requirements
10:30 – 11:00   Tea
11:00 – 13:00   Continuation of research
13:00 – 14:00   Lunch break
14:00 – 15:30   Review of job shadowing experience, knowledge and skills acquired
15:30   Departure

3rd INTAKE PROGRAMME

Day 1
09:00 – 09:30   Introduction and welcome
09:30 – 10:00   Girls assigned to mentors in preferred divisions
10:00 – 10:30   Tea
10:30 – 13:00   Job shadowing, including job tasks
13:00 – 14:00   Lunch
14:00 – 15:00   Job shadowing, including job tasks
15:00 – 15:30   Review of job shadowing experience, knowledge and skills acquired
15:30   Wrap-up and departure

Day 2
09:00 – 09:30   Introduction and welcome
09:30 – 10:00   Girls assigned to mentors in preferred divisions
10:00 – 10:30   Tea
10:30 – 13:00   Job shadowing, including job tasks
13:00 – 14:00   Lunch
14:00 – 15:00   Job shadowing, including job tasks
15:00 – 15:30   Review of job shadowing experience, knowledge and skills acquired
15:30   Wrap-up and departure

Day 3
09:00 – 09:30   Meeting with job shadowing co-ordinator to reflect on experiences Day 2
09:30 – 10:00   Girls assigned to mentors in preferred divisions
10:00 – 10:30   Tea
10:30 – 13:00   Job shadowing, including job tasks
13:00 – 14:00   Lunch
14:00 – 15:00   Job shadowing, including job tasks
15:00 – 15:30   Review of job shadowing experience, knowledge and skills acquired
15:30   Wrap-up and departure

Day 4
09:00 – 09:30   Meeting with job shadowing co-ordinator to reflect on experiences Day 3
09:30 – 10:30   Debrief meeting with divisional representatives, girls and job shadowing co-ordinator
10:30 – 11:00   Tea
11:00 – 13:00   Continuation of debrief meeting and wrap up
13:00 – 14:00   Lunch and departure

SELECTION CRITERIA

Specific Selection Criteria

To ensure that appropriate beneficiaries are selected to participate in the programme, the following selection criteria are to be applied:

- All beneficiaries should be girls from disadvantaged communities
- Only girls in Grades 9,10, 11 and 12 are eligible for selection
- All beneficiaries have to be from public schools
- Only girls who meet the minimum pass requirements of the learning areas and grades may be considered
- All beneficiaries need to obtain at least 50% (level 4), in Maths/Maths literacy to qualify for selection
- Only girls with a good behavioural and disciplinary record are eligible for selection
- All beneficiaries must be dedicated to their schools and display a keen interest in their scholastic performance