

**NATIONAL ASSEMBLY**

**ORAL REPLY**

**QUESTION 141.**

**DATE OF PUBLICATION OF INTERNAL QUESTION PAPER: 28/02/2023**

**INTERNAL QUESTION PAPER: 05/2023**

**141. . Mr W T Letsie (ANC) to ask the Minister of Basic Education: to ask the Minister of Basic Education:**

- (1) What has she found is the progress of the pilot project on coding and robotics;
- (2) whether her department is increasing its capacity to offer coding and robotics in schools; if not, why not; if so, what are the relevant details?

## **NATIONAL ASSEMBLY**

### **ORAL REPLY**

#### **QUESTION 141.**

##### **Response**

##### **Progress of Coding and Robotics Pilot of Draft CAPS**

The Pilot programme is showing increasingly effective implementation, with teachers becoming more confident and proficient in their presentation and delivery of the draft curriculum to the Foundation Phase in 200 Primary schools.

Educators have been trained using the DBE-UNISA Partnership via the UNISA MOOC platform.

The coding and robotics curriculum is still in draft form, but it is envisaged that it will be finalized in March 2023, specifically that of the Foundation Phase.

A significant number of pilot schools are not sufficiently resourced. Educators, however, have lesson plans, and DBE as well as provinces have orientated the educators.

The pilot has been extended also to the Intermediate and Senior phases, and training for teachers of these grades will be instituted fully once the curriculum is finalized.

##### **Whether her department is increasing its capacity to offer coding and robotics in schools; if not, why not; if so, what are the relevant details?**

Numerous workshops for educators have been and continue to be conducted, and teacher support is available and accessible online via the UNISA MOOC Platform every Friday from 15H00-16H00.

The Director General has approved the continuation of the pilot in 2023 for Grades R-9, in the initial 200 pilot schools for Grades R-3, with extension to 1000 schools for Grades 4-7 and 569 Secondary Schools for Grades 8 and 9.

Teachers in these schools have been orientated to the draft curriculum, but there are persistent challenges relating to inadequate internet connectivity and insufficient provision of physical resources such IT devices and Coding and Robotics Kits.

The DBE continues to work with its corporate partners to improve connectivity as well as expansion of resource provision. The MST Conditional Grant allocation to PEDs specifically identifies Coding and Robotics to receive additional targeted funding, at the PED's discretion.

The DBE, in collaboration with British Council has developed a programme for Grade 8 and 9 learners entitled, '#Learning2Code', to cultivate interest and excitement in CAT and IT that exposes them to a range of digital skills, including coding.

## **NATIONAL ASSEMBLY**

### **ORAL REPLY**

#### **QUESTION 141.**

The Coding and Computational Thinking Skills Teacher and Learner Development with British Council is an initiative for Grades 7-9 learners and teachers, using devices and programmes appropriate to the skills needed in the 21st Century.

Emanating from a DBE-SITA partnership, a Robotics Challenge for Grades 8 and 9 is in place to further stimulate and maintain interest in Coding and Robotics – a programme that also capacitates educators. The current challenge ends 26 March 2023, and at a function in Mpumalanga, learners from Piloting Secondary schools will receive recognition and prizes for their efforts.

The 'Girl Learner in Stem Initiative' is designed to empower and encourage them to participate in STEM subjects. 40 Girls in Grades 8 and 9 will participate in a Boot Camp in Limpopo during the June 2023 School Holidays, and a further 40 Girls will enjoy a similar Boot Camp in September 2023. This Initiative a collaboration between the Department of Science and Innovation (DSI) and the United Nations Women.

Moderate success has been achieved in the pilot programme:

- Increased awareness of Coding and Robotics across the country;
- All provincial subject managers have been orientated in Coding and Robotics;
- Provinces have orientated teachers of Grades R-9 in preparation for implementation;
- Partnerships have been entered into with HEIs, most notably NMU, where teachers are being trained in collaboration with Unions, with co-ordination at the DBE between Branch T and UNISA, aimed at training Grades R-3 educators in schools piloting Coding in Robotics;
- Increased monitoring and reporting on the pilot (DBE APP 2.1.13 requires monitoring of 18 pilot schools, 2 per province. All schools have been monitored;
- Three Inter-provincial Meetings with Project Management Teams have been held within the financial year 2022/23;
- Improved digital skills of educators;
- Increased expenditure on Coding and Robotics resources by PEDs through both the MST Conditional Grant and provincial equitable share;
- Inter-directorate collaborations, and partnerships with NGOs have been established in all provinces;

## **NATIONAL ASSEMBLY**

### **ORAL REPLY**

#### **QUESTION 141.**

- Increased extramural exhibitions and competitions in provinces with increased interest shown by learners; and
- Lesson plans, specifically developed for Grads R-9 educators will assist in effective implementation.