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**INTERNAL QUESTION PAPER: 09/2022**

**901.    Mr S L Ngcobo (IFP) to ask the Minister of Basic Education: to ask the Minister of Basic Education:**

Whether, with reference to the Fourth Industrial Revolution, the increase of automation, more use for robotic components and an urgent need to upskill those whose jobs are in danger of becoming redundant and the many opportunities for the Republic to benefit from the changes 4IR will bring, her department has a plan to focus on skills development to ensure that (a) young persons are ready for this new development in the world and (b) the Republic does not fall further behind on a global scale; if not, why not; if so, what are the further, relevant details?

**Response**

**Whether with reference to the fourth Industrial revolution, the increase of automation, more use for robotic components and an urgent need to upskill those whose  jobs are in danger of becoming redundant and the many opportunities for the Republic to benefit from changes 4IR will bring, her department has a plan to focus on skills development to ensure that (a) young persons are ready for the new development in the world and (b)the Republic does not  fall further behind on a global scale, if not why not; if so what are the further, relevant details?**

**Response**

Basic Education Sector is at the centre of realigning the output of young people that the economy requires. The Fourth Industrial Revolution (4IR) is at the centre of this realignment of the required skills of the future. The Department of Basic Education has a roadmap which it has followed by the development of a Coding and Robotics Curriculum for Grades R-9 which will eventually be offered in the FET Band (Grades10-12) responding to the changing work environment. This roadmap is aligned with the National Development Plan (NDP) and the Sustainable Development Goals (SDG’s) to ensure that learners going through the educations system, are being exposed to Coding and Robotics will develop the Foundational Skills required from a workplace that has been changed by the 4IR e.g. Big Data, Artificial Intelligence, Automation of production systems, etc.

Through the Coding and Robotics Curriculum, the DBE aim is to upskill the educators, education officials and youth in these areas. The Application Skills envisaged in the draft Coding and Robotics targets these specific skills required. In a short to medium term, the public-private partnerships including industry and Higher Education Institutions should activate plans that will mediate the required 4IR skills to the current workforce, to cushion the impact of change management and negative impact of automating the economic tools of production on labour.

The DBE has awakened to the realisation that the ***“Skills of a Changing World***” is a reality that the country requires. Thus, the development and piloting of the Three Steams Model (Academic, Vocational and Occupational Steams) and the Multi-Certification Strategy in the curriculum offering by the DBE

The DBE has Orientated the Grade R-8 piloting schools’ teachers in the Draft Coding and Robotics Curriculum. The University of South Africa is currently training 950 Foundation Phase teachers in Coding and Robotics. This training will realise its objectives in the third quarter of 2022 with the support from the ETDP-SETA.

(b)the DBE does not believe that we are falling behind from the 4IR space since we are the country is amongst the first in the world to develop a formal Coding and Robotics curriculum which provide learners with necessary skills and competencies. There is no need to panic, as automation of the economic tools is not equal to job losses automated Machinery and Robots will need skilled personnel to design, manufacture, programme and code them. The   capacitation of our Human Resources both active in the economy through in-service programmes that the youth can be   part of and those in our education system will contribute to job creation and economic development noting the required ***“Skills of the changing world.*** *The DBE is partnering with the private sector to resource and fund the programmes for teacher development and the youth at large*