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The Digital World of Education in Mauritius: Adapting the Mauritian Education System with the Pace of Technology

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Abstract. Information and Communication Technology (ICT) in the school curriculum. There has been a growing concern about how to make the Mauritian school equipped with computers so that the future school leavers are well trained to fit the highly sophisticated digital world. To cope and compete with the international educational world, the Mauritian Government has invested massively in the Education system. The quest for adapting the Mauritian education system to the ICT world was studied by analyzing the papers published by the Ministry of Education and Human Resource of Mauritius (MOEHR). The focus was therefore on the needs of introducing ICT in the Mauritian education curriculum throughout the school life of a student. The paper aims to assist educationists to better understand the needs of technology in imparting a quality education. The study revealed that a certain level of technology and ICT do exists in the Mauritian education system. This is due to the caring attitude of each and every government to enhance the teaching and learning process in the school. But there are many factors which cause great dissatisfaction as the implementation and the publication of New Educational Reforms have been the major concerned. Some recommendations have also been put forward on how to imbed technology and ICT in the Mauritian education system. The educational reforms, the devotion, commitment, and contribution to impart ICT will motivate the government to continue to invest in the education system.

Keywords: Education, ICT and Technology.

Education

Education can be considered as the key to a successful future of any country. The report 'Meeting Basic Learning Needs- A vision for the 1990s' on the world conference on education for all, held at Jomtien in 1990, stated that "education refers to the provision of learning opportunities in a purposeful and organized manner through various means including, but not limited to school and other

educational institutions". To glitter in the middle of the Indian Ocean and to be tagged as the star and key of the Indian Ocean, it is essential for Mauritius to improve its teaching and learning process through a digitalised Mauritius has been striving hard to digitalize the education system by embedding system so that the human resources are well equipped to help to increase the economic growth of the country. However, the standard of education depends upon the government as most of the policies are introduced and reframed by them. Well-organized governments tend to involve the different stake holders in providing a better education for all. Thus, the purpose of this study is to explore the avenues in providing a better digitalised education to the students who have embarked unknowingly in the journey of education. Education has been the priority of the successive governments in Mauritius. Syed Zubair Haider et al (2015) came forward with the view that education plays a crucial role in the development of the country's younger generation to lead a successful life in this world of dynamic and global competition. Aikaman and Unterhalter (2005) stated that to educate a nation stays the most important strategy for the progress of the society all the way through the developing world. This has been in line with the Mauritian government to educate the nation.

Role of ICT in Learning

Mauritius is a small island which is constantly evolving in the digital world. ICT is making dynamic changes in our society. It has an effect on our daily life. Today the digital age has altered the manner individuals communicate, socialize, try to find help, learn, and get access to information or even play. Gradually, technology is embedding in the Mauritian's culture. Tinio (2002), declares that the prospective of ICTs is ever-increasing access and improving bearing and quality of education in the developing countries. Thus, it has become the responsibility of the government to provide the young learners with relevant knowledge that will prepare them for life after school. The increasing use of ICT in our schools is gradually building some major variations in the teaching and learning process. Mikre (2011) argued that learners using ICT facilities demonstrate superior knowledge gains than those individuals who do not make use of. In a study done by Fuchs and Woessmann (2004), an affirmative relationship was observed between learner attainment and the ease of use of computers both at the learners home and schools. There is no doubt that ICT enables self-paced learning. However, it is also true that a simple raise in ICT provision does not give the assurance in the enhancement of the educational performance. Moreover, some schools in Mauritius are still facing difficulty in implementing of ICT in classroom.

ICT in School curriculum

Since last decade, Mauritius has been witnessing a boom in the computerization process and there has been a craze for the study of computer studies. The government of Mauritius had to bring changes in its education system in order to cope with the new trend. ABS (2011) reported that changes were brought in educational policies which placed more pressures and demands on teachers and principals. With the implementation of ICT in the Mauritian curriculum, there

has been a great impact on the educators and the heads of schools. The school curriculum has to witness a great change and to implement the change the government policies is being modified. The Education and human resources strategy plan 2008-2020 stated that the strategy plan is mutable and the Education and training sector has never been always dynamic. The potential to mutate the policies has provided the space for inculcating latest technology in the school curriculum.

Struggle for implementing technology

During the 1980's the Government worked to achieve quality education through improved instructional materials and teacher training (Armoogum Parsuramen, 2001). The emphasis was more on technology, but it was not define of which type of technology it is referring to and how it can contribute to the upliftment of the education system to impart a quality education.

Moreover in 1984 the white paper on Education pointed out that Mauritius main resource is its people and it is only on their abilities and skills that the nation's future is based. The education helps to build these qualities which are basic to the development of the country. The expenditure on education was about 4 percent of the GDP and 14 percent of the Total Government Recurrent budget till the year 1990 (Master Plan, 1997). This proves that since the early 1980's the government has been investing massively in the education system as Mauritius did not possess any natural resource and thus they have tried to build up an educated man power. Today Mauritius is shinning among the African countries because of its educated man power.

The Master plan, 1997 stated that the curriculum has been broadened to include more technical-oriented subjects. But the need for PC tablet and computer were not felt at that time. It is in the year 2008 that the craze for the need of the introduction of ICT was felt by the government to meet the pace of the rapidly changing world.

Strive to digitalise the curriculum

The Educational Report Education and Human Resources strategy Plan 2008-2020(2009) showed that the objective of the MOEHR was slightly modified in such a way to impart a better education service to the Mauritians by giving importance to Information and Communication Technology in the school curriculum. Among many objectives set by the Mauritian Government, one objective was to maintain an impartial right of entry to all learners to a quality education by making sure that each and every learners achieve an elevated levels of attainment in literacy, numeracy, Information and Communications Technology and such indispensable life Skills as good values, healthy lifestyles and so forth as the basis for lifelong learning and good citizen.

The MOEHR came with the vision to embed technology in the education system by equipping the schools with IT facilities by the end of 2010. The aim was to expose the young learners to modern technology (EHRSP 2008-2020). Moreover they also plan to train the educators in ICT so that they can disseminate it to the learners.

The MOEHR aimed improving the ZEP school, by setting up of computer rooms with the help of sponsors through the Corporate Social Responsibility (Education Reform in Action 2008-2014).

In 2010, the ministry of education introduced the National Assessment at the Form III level and the private colleges joined in the program in 2013. The aim was to measure the attainment levels of learners in subjects like mathematics, French, computer studies/ literacy, biology, chemistry and physics. (Education Reform in Action 2008-2014). Thus, the mission of the government was to embed the computer studies in the Mauritian school curriculum.

The ministry also aspired to transform schools by integrating different activities in the national curriculum to create a sense of balance with academic studies, to unleash the ability of students and to provide them the chance to build up their hidden talents and their multiple intelligences. Clubs such as the science club, UNESCO club, integrity club, sports club, IT club, cinematography club, Arts and craft club, Drama club, Music club, etc have been introduced in the school curriculum through the activity periods in the school. The activity periods in the secondary school have been introduced since 2009 and the IT club also flashes as one of the activity to be carried out. This was another successful attempt of the government to inculcate the use of IT among the students. The students are thus groomed to master the technology at an early age.

The Vision of the MOEHR is to exploit Information and Communication Technologies (ICTs) with the idea to improve the operations and service delivery of the Education sector with the emphasis of improving quality of the pedagogical processes as well as to boost the efficiency and effectiveness of school management. In the quest to promote IT literacy, the ministry has embarked and invested on a number of ICT projects. The ICT infrastructure has been improved in the school. Educators have been trained in basic IT so that the IT literacy can be introduced in the school program. One hundred and twenty eight public pre-school have been equipped with the computer facilities (Education Reform in Action 2008-2014). In addition to this, laptops and projectors also have been provided to all primary school in view to improve the teaching and learning process.

Since 2011, the ZEP schools have been equipped with WIFI facilities, with the help of the CSR program where the private sector/companies invest a percentage of their revenue in the upliftment of the society. The survey report on the practical implementation of CSR under the new legislation (2011) pointed out that all companies must compulsorily invest two percent of their profit.

Thus, through the SANKORE Project in 2011 the Mauritian education curriculum has benefited a lot. The project had the objective to provide an Education for all through digital empowerment and the use of innovative technology. The schools were provided with 1615 interactive projectors and laptops to the Standard IV to standard VI students. This has marked a new horizon in implementing technology in the Mauritian education system (Education Reform in Action 2008-2014).

Today all the primary schools possess an ICT laboratory with at least 10 computers and 2 printers and a Scanner. Training sessions of educators have been carried out to equip the educators to teach and make full use of ICT. In

addition to it the senior educators, rectors and ICT educators have been trained to use tablet PC.

An attempt to introduce computer programming has been carried out in five state secondary schools on the pilot basis in 2013 in view to prepare the learner to master the digital world. About 26100 tablets PC have been distributed by the Mauritian Government to the students and educators. SMS E-Register system has been introduced in 85 state secondary school and 40 private schools.

Moreover, today 19 State Secondary Schools have been equipped with smart interactive whiteboard and the school library is equipped with access to the internet facilities to the students (Education Reform in Action 2008-2014).

The Mauritian's education ministers of successive Governments have tried to carry our Educational planning through different educational reports; Master Plan 1991, White paper 1997, Action Plan 1998, Ending the Rat Race 2001, Education and Human Resources Strategy Plan 2008-2020,and Education Reforms in Action 2008-2014. It has been noted that educational reforms have been the priority of each and every Government. The international agencies are giving the education sector a major concern, innovative training programs have been initiated, social scientists are carrying out an intensive research work on the subject, and as a result a large innovative professional literature is rising. The Education and Human Resources Strategy Plan 2008-2020 have been able to implement the vision of the Government of embedding technology in the curriculum. The success of the attempt may be justified by the election of the same Government for successive two mandates, thus the minister had ample of time to implement the Strategy plan 2008-2020.

Recommendation

The need for ICT in education should be reworked so that it can be refurbished at all level of the school curriculum. The students must compulsorily go for ICT till Form III and then they have to opt for or drop ICT in upper forms. The ICT must be made compulsory up to a certain level so that the learners may acquire sufficient knowledge to apply it in the day to day life and the work place. The different stakeholders of the education sector need to have a consensus in providing an equal and fair chance to each and every citizen of Mauritius by providing a fair access to the digitalized world as only some schools possess the equipments such as interactive whiteboard, laptops, WIFI connections, printers, computers, PC Tablet and interactive projectors.

The PC Tablet programs should start from the Form I level and not at SC level as these students were potential voters for the upcoming elections. The PC Tablet program should be reviewed and necessary accessories such as WIFI connections, subject content platform and an interactive platform for students must be provided along with the PC Tablet so that the educators and as well as the students can make maximum use of it. The latest technology such as LCD projectors, printers and scanners must be made available in all classes so that the educators can deliver judiciously a proper education within the limited time frame. Finally, the educational report published by the successive Government must be reframed in such a way that the objective is achieved within the time frame and more precisely within the laps of the government mandate.

Conclusion

The Government has made a great step by infusing technology in school. However, the ministry must keep an eye on the schools and must make sure that the schools make full use of the accessories provided. Moreover, a committee must be set up to train and evaluate the educators on how effectively the digital technology is being applied in the teaching and learning process. Given that education is free for all and the Government adheres to the principle of providing free education to the learners, therefore all schools must be similarly well equipped so that a uniform type of education is dispensed in all the Mauritian schools. Since the last decade tremendous amount of money have been inserted in Mauritian education system in view of embedding technology in the school curriculum. Despite many changes in curriculum, many schools are not making full use of technology. The Mauritian education has succeeded in embedding a certain level of digital technology but there are much more to achieve as the digital technology is a dynamic system which keep on evolving with new features every day.

Moreover, a standardized digital curriculum must be provided in all schools and they must keep abreast with the innovative changes. The school must properly disseminate the ICT and technology in view to provide a World Class Quality Education in the context of globalization. This will enable young Mauritians to achieve moral, intellectual and physical development to achieve high academic standards. Thus, finally we can conclude that the Mauritian government is in quest of imparting a world class digital education and this has been achieved up to a certain level and yet new avenues must be tapped.

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