Technologies and provision of information for the enhancement of mathematics learning  A case study of college Sainte Marie Reine de Kabgayi

Nsengiyumva, Jean Damascène
Mount Kenya University

http://erepository.mku.ac.ke/handle/123456789/5386
Downloaded from Mount Kenya University, Institutional repository
TECHNOLOGIES AND PROVISION OF INFORMATION FOR THE ENHANCEMENT OF MATHEMATICS LEARNING
A CASE STUDY OF COLLEGE SAINTE MARIE REINE DE KABGAYI

BY
NSENGIYUMVA JEAN DAMASCÈNE
MIS/0009/12

ABSTRACT

The study on the Contribution of Technologies in providing Information for the enhancement of Mathematics learning was conducted at College Sainte Marie Reine de Kabgayi. The study intended globally to clarify the contribution of ICTs in learning Mathematics at College Sainte Marie Reine de Kabgayi. Specifically, the study intended to assess the contribution of ICT in learning Mathematics at College Sainte Marie Reine de Kabgayi, to ascertain the student perception towards the use of ICT in learning Mathematics and to identify current challenges in use of ICT in learning Mathematics at College Sainte Marie Reine de Kabgayi.

To achieve our objectives, a sample of 261 students was selected from a total population of 750 students by the help of Slovin’s sampling formula. Data was collected by use of questionnaires and interviews methods. After data collection, they were subjected to both quantitative and qualitative analysis and the conclusion was drawn base in the findings. After data had been analyzed and interpreted, the findings have shown that ICT usage has increased learner motivation and engagement, by facilitating the acquisition of basic skills, and by enhancing learning environment.

ICTs were used as transformational tools which contributed to the promotion of the shift to a learner-centered environment. Other students testified that the use of ICTs in learning Mathematics increased their interactivity: ICT usage helped students to relate to the content, go forward and backward in the content, therefore the ICT usage contributed to learning enhancement of Mathematics at College Sainte Marie Reine de Kabgayi.

For the second objective which was to ascertain the student perception towards the use of ICT in learning, the research findings highlighted that respondents acknowledged that there is less use of computers compared to other resources such as books for Mathematics learning purposes. The great majority testified that they know what to do for using computers in instructional environments (79.4%) and the greater majority agreed that they were aware of the opportunities that computers offer (62.5%). Majority of the respondents acknowledged that they were convinced that the use of instructional technologies increases the interest of students toward courses (90%) as well as increasing the quality of courses (96.9%). Lastly, 96.3% of the respondents agreed that ICTs contribute to be more productive as students.

As far as identifying current challenges in use of ICT in learning Mathematics at College Sainte Marie Reine de Kabgayi, the study showed that among the barriers hampering the use of ICT in learning Mathematics at College Sainte Marie Reine include among others the imbalance between ICT tools and the number of students (80.5%), the lack of specific software for Mathematics (88.5%). Another crucial challenge that was evidenced was all about the insufficient access to computers or internet since students access such ICT facilities in hours of computer science course and homework exercises though it was evidenced that the introduction of the ICT in learning Mathematics brought about increased scholastic performance in Mathematics in national exams.

It was concluded that despite the fact that there was generally a low extent utilization of ICTs on
student learning in Mathematics at College Sainte Marie Reine, the fact that ICTs impact positively in several ways on student learning reveal an urgent need for their increased utilization.