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THE STATE OF PREPAREDNESS FOR STEM EDUCATION IN SCHOOL LIBRARIES: A
SURVEY OF SELECTED SECONDARY SCHOOLS IN THE BULAWAYO
METROPOLITAN PROVINCE

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DATE	ACCESSION	CLASS No
06/03/19	SC 19/1080	

A RESEARCH PROJECT SUBMITTED TO THE NATIONAL UNIVERSITY OF
SCIENCE AND TECHNOLOGY IN PARTIAL FULFILMENT OF THE
REQUIREMENTS OF THE MASTER OF SCIENCE DEGREE

IN

LIBRARY AND INFORMATION SCIENCE

ACADEMIC SUPERVISOR:

MR N. GUVAVA

BULAWAYO, ZIMBABWE

YEAR: 2018



ABSTRACT

The Government of Zimbabwe through the Ministry of Primary and Secondary Education and the Ministry of Higher and Tertiary Education Science and Technology Development made a tremendous emphasis and interest on STEM education as a national priority for economic development. STEM Education is the key to economic growth and industrialisation. A conceptual framework was developed from Noah and Brickman (2004) and Ross, Kuthlau and OLEMA (2004) models and the following concepts were picked library collections, infrastructure, collaborations, human resources and funding of the school libraries. A cross-sectional survey strategy was used to gather data using questionnaires, interviews, and observations. The population comprised sixteen secondary schools in the Bulawayo Metropolitan province and the respondents were Heads of Schools, STEM Teachers, and school librarians. Sixty questionnaires were returned giving a response rate of 60%. The researcher interviewed four Heads of Schools from public schools and four from private schools. The findings revealed that most public school libraries were not prepared to support STEM education and they needed to be redesigned to cater for STEM education curriculum, they had few and outdated library collections, did not have computers in the library, did not have adequate qualified librarians, did not have specific budget for library resources and they relied on donations, there were no policies on collection development and poor collaborations with the teachers. In private schools the findings revealed that they were prepared to support STEM education in their school libraries as most of them had adequate infrastructure, current library collections and electronic resources, technological infrastructure, qualified librarians, a specific budget for the library, teachers collaborated with the School librarians and they had policies that guide collection development. It was recommended that in public schools there is a need for acquisition of current library collections, qualified librarians, technological infrastructure, adequate funding, professional development for school librarians, adequate funding and collaborations between the STEM teachers and the school librarians whereas in private schools they need to make use of the available library spaces and provide 3Dimensional printers and Computer Aided Design software through which the students can learn the art of creation.