The purpose of this study was to find out the perceptions of Secondary school students towards ICT careers in Nairobi County. The main focus was on the factors influencing boys and girls in the selection of subjects and careers in selected secondary schools in Nairobi County. The study was prompted by the noted major gender divide that exist in Science Technology Engineering and Mathematics (STEM) careers. As a result, the Information and Communication Technology sector has continued to be male dominated while women continue to be under represented. The general objective of the study was to determine the factors that explain gender differences in the selection of STEM subjects and ICT careers in secondary schools in Nairobi County. A gender schema theoretical framework as proposed by Sandra Bem (1981) was used to understand how girls construct, perceive and understand themselves in relation to their male counterparts in terms of technology. The study employed a descriptive survey design. Purposive and simple random sampling techniques were used in selecting the respondents for the study. Interview guides and closed and open-ended questionnaires were the main data collection instruments for the research. Both qualitative and quantitative techniques guided by research objectives and research questions were used to analyze data. Qualitative data was analyzed by use of the themes and the coding technique while frequencies and percentages were used in the analysis of quantitative data that was collected. The study established that, student subject selection is influenced by myriad factors including, influence from parents, teachers and peers. However, performance history of the subject, marketability of the careers associated with the subject and awareness significantly contributed to subject selection. There was preference of boys and girls towards Science, Mathematics and Technology subjects and careers, with engineering course being preferred by boys while girls tended to prefer medicine and business courses. The perception of the boys and girls towards ICT careers is positive and both boys and girls are capable of taking ICT careers, however, there was preference by gender towards particular ICT careers, boys tending to prefer hardware and engineering related while girls preferred software and data processing careers. Finally dissemination of information on ICT careers in the job market, seminars, conferences and
invitation of ICT experts will influence the perception of taking computer studies in KCSE and attraction to ICT. The study recommends that, secondary schools should create awareness on the ICT careers through invitation of women and men who are ICT experts to market and encourage girls towards ICT careers.