STATISTICS IN THE SCHOOL CURRICULUM IN HONG KONG

Pak-Hong Cheung, The University of Hong Kong, Hong Kong, PRC

Statistics was introduced into the school mathematics curriculum in Hong Kong as part of the New Mathematics movement in the 1960s. In the present mathematics curriculum for primary schools, students are required to learn how to draw and to read simple graphs such as pictograms and bar charts, and to calculate the mean without using calculator nor computer.

In the five-year secondary school mathematics curriculum, which was designed in the 1980s independent of the primary school mathematics curriculum, statistics was taught from scratch again, covering graphs such as pictograms, bar charts, pie charts, histograms, frequency and cumulative frequency polygons and curves. Students are also expected to learn how to calculate measures of central tendency such as the mean, the median and the mode as well as measures of dispersion, including the range, the quartiles and the standard deviation. Simple probability, including the addition and multiplication rules, are also taught but it is treated as independent of statistics and the idea of expectation is excluded. There is no distinction between population and sample.

In secondary school, students are allowed to use calculators but the use of computer in teaching mathematics or statistics is uncommon, despite the existence of many computers in schools. The topic “use and abuse of statistics” is in the mathematics curriculum but is usually ignored by teachers because of the difficulty in assessing students on this topic in the public examination. Statistics is taught in the same way as teaching arithmetic, emphasising on computation and getting unique answers. Few teachers have any formal education in statistics at tertiary level and are thus very conservative towards introducing new topics such as exploratory data analysis, projects, survey and sampling.