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Qualitative and Quantitative Methods in Multidisciplinary Fields Collection Development

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Abstract: Traditional collection building approaches are limited in breadth and scope and are not necessarily suitable for multidisciplinary fields development in the institutes of the Chinese Academy of Sciences. The increasing of multidisciplinary fields researches require a viable approach to collection development in these libraries. This study uses qualitative and quantitative analysis to assess collection. The quantitative analysis consists of three levels of evaluation, which including realistic demand, potential demand and trend demand analysis. For one institute, three samples were separately selected from the object institute, more than one international top institutes in highly relative research fields and future research hotspots. Each sample contains an appropriate number of papers published in recent five years. Several keywords and the organization names were reasonably combined to search in commercial databases and the institutional repositories. The publishing information and citations in the bibliographies of these papers were selected to build the dataset. One weighted evaluation model and citation analysis were used to calculate the demand intensity index of every journal and book. Principal Investigator selector and database traffic provide a qualitative evidence to describe the demand frequency. The demand intensity, demand frequency and academic committee recommendations were comprehensively considered to recommend collection development. The collection gaps or weaknesses were ascertained by comparing the current collection and the recommend collection. This approach was applied in more than 80 institutes' libraries in Chinese Academy of Sciences in the past three years. The evaluation results provided an important evidence for collections building in the second year. The latest user survey results showed that the updated collection's capacity to support research in a multidisciplinary subject area have increased

Keywords: citation analysis, collection assessment, collection development, quantitative analysis

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