

International Comparative Study on the Difficulty Degree of Mathematics Textbooks for Primary School

Kuang Kong-xiu

Southwest University, Chongqing ,China kongxiu2006@126.com

Cai Qing-you

Southwest University, Chongqing ,China cqy316@126.com

Song Nai-qing *

Southwest University, Chongqing ,China songnq@swu.edu.cn

High quality textbook is very important to improve the quality of education in a country. In addition, to understand the degree of difficulty of the Primary Mathematics textbooks in other countries of the world is significant for a country to develop its mathematics textbooks for primary school. Using statistical methods, this paper analyzed the difficulty degree of primary mathematics textbooks of ten countries-China, Japan, South Korea, Singapore, Russia, the United States, the United Kingdom, Germany, France and Australia and constructed a mathematical model for testing the difficulty degree of primary mathematics textbooks based on literature analysis, interviews, exploratory factor analysis, etc. The model was then applied to analyze the typical primary mathematics textbooks of above ten countries. Results showed that primary mathematics textbooks can be sorted as follows according to its difficulty level from difficult to easy: The United States(McGraw-Hill Companies), France(Belin Publishers), Germany (Brunswick Education Textbook Publishers), Russia (Tower-chart Publishing Center; The Federation of the 21st Century Press), China (People's Education Press), Japan (Kai Hayashi Press), Singapore (Marshall Cavendish Education Publishers), Australia (Cengage Learning Australia Pty Limited Companies), South Korea (Doosan Dong Press), the United States (Person Education Companies), British (Collins Press).

Key Words: Mathematics textbooks, primary school mathematics, model on difficulty, international comparison.