



ABSTRACT

Study of Asian Educational Indicators: Developing and Data Collecting

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The main purposes of this research include: (1) to develop education indicators for Asian countries, (2) to analyze the validity of indicators and the feasibility of data acquisition, and finally, (3) to suggest plans and strategies for further development of education indicators. Based on the analysis of current state of data collection in Asian countries, this research analyzes the feasibility of data collection from Asian countries and suggests data collection and management plans. With the introduction of chapter I, the following is

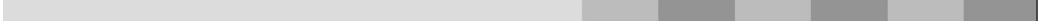
Chapter II reviews relevant literature to explore concepts and models about the development of education indicators. Major international indicators are analyzed to draw issues and implications that guide this research. The major issues retrieved from the process of international educational indicator projects include: the role of leading government in the process of project conceptions and its implementation, prolonged efforts to develop and improve indicators, ensuring validity of indicators, attentions toward students' academic achievements, and the



importance of data collection and its methods.

Chapter III analyzes general objectives and current issues of educational policies of the Asian countries to draw rationales and criteria for selecting indicators. While aiming at comprehending and monitoring educational systems of Asian countries, Asian indicators considered educational policies such as equity, excellence, and quality assurance. Regarding inputted material resources, policy issues such as securing sufficient fund, financial support to ensure educational equity, increasing efficiency for educational expenses, equipment of educational facilities were considered. About human resources, securing appropriate number of students, student readiness, teacher training, job security for teachers were selected. As to the process of education, establishment of legal institutions and regulations, laying the foundations of supporting systems, promoting parental participation, establishment of community network were chosen as important issues of educational policies. Selected issues related to the output of education include: student academic achievements, character development, curriculum completion, linkages between education and labor market, social mobility, global citizenship, and sustainable development. Based on these educational objectives and policy issues, 234 indicators were selected first, and through validating process, 64 indicators out of 234 were selected.

Chapter IV explains validating process of the 64 indicators and feasibility of data acquisition. First, based on experts' opinions about the additional areas that call for new indicators were included in the indicator development plan. Also, upon the basis of experts' reviews, such indicators as teachers' research outcomes, number of schools managed by a school district office, records of university-industry networks, international mobility, voting rates were removed from the lists. Some items, such as library expenses per student and number of students per computer, received less agreement from the experts and were classified for further reviews and considerations. Finally, the total of 53




indicator items (21 input related indicators, 17 process indicators and 21 output indicators) were selected as the final.

Despite twice validating processes, the final system of indicators still contains several limitations and challenges. For example, the experts agreed less on the process and outcome indicators compared to input indicators. Also, as the developed system of indicators intends to cover all educational levels, it falls short in capturing particularity of educational levels. Moreover, it needs constant efforts to be responsive to the demands of the Asian countries. Finally, consensus among the future participating countries and experts are essential for the success of this project. These issues should be addressed in the next steps of this research.

Specifically, efforts to examine concurrence between what is intended to measure and what the indicators actually measure should be continued. Also, we need to keep current with policy trends and agendas of Asian countries and further discussion is required to extract common interests among them and to connect them to the development of indicators. In addition to the efforts to understand educational needs of Asian countries, the efforts to recognize international educational needs, interpret them within the contexts of Asian countries, and reflecting them in the development of education indicators are also required. Moreover, a system needs to be established to understand emerging demands and characteristics of indicator items that cannot be covered by the existing indicators. Utilizing surveys at the local level could be a solution for understanding specific demands of each country as well as utilizing international surveys to understand that of international community. In addition, there are needs for further development of indicators and data-collection in the areas such as student achievement, non-cognitive skills, character development, diversity, and educational finance.

Chapter V analyzes the educational data collected by some Asian countries and



draw implications for future data collection process of this research. Quite a few Asian countries participate in the UIS's international survey. The UIS provides detailed guidance and information to ensure quality of the collected data. Hence, cooperation with international organizations and expert institutions will be important for this project. Among the 53 indicators selected by this research, only 1/5 of them can be acquired through UIS. Although OECD's indicators overlaps with the 53 items more than UIS indicators, only Japan and Korea are participating countries for the OECD project, which illustrates difficulties of data generation. In addition, a quality assurance system needs to be established for reliable data collection and analysis. Capacity building efforts through various training programs including conducting regular workshops and creating technical manuals and guidebooks are also indispensable.

Lastly, chapter VI suggests political/administrative supports required at different levels: international, governmental, and institutional. First, international cooperation is crucial for the success of this research. For instance, cooperating with international organizations and expanding regional cooperation could be some ways for that. Second, the Korean government needs to make efforts to consolidate its leadership in the Asian region, which is a key factor for successful project implementations. At the same time, the project of education indicators for Asian countries could function as an opportunity to secure its leadership in Asia. And finally, relevant research institutes are to provide supports both human and funding resources for further research on development and improvement of education indicators, development and operations of capacity building programs, and analysis and utilization of the indicators.

□ **Keywords:** Asian education indicators, validity, feasibility, international cooperation, indicator development, data collection