

BRICS 국가별 평생교육체제 강점 및 약점 분석연구

Analysis of Strength and Weaknesses in Lifelong Learning System of BRICS

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요약

본 연구의 목적은 BRICS 국가들의 평생교육체제의 경쟁력을 측정하고 분석하는 것이다. 이를 위해 기존 개발도상국의 NLLS 시스템을 측정하기 위해 개발된 메커니즘 모형 및 32개의 지표와 12개의 하위요소를 측정에 이용하였다. GLLI(Global Lifelong Learning Index) 측정결과, 중국과 러시아가 상대적으로 강세를 나타냈고, 브라질, 남아공이 중간그룹을 형성하였다. 인도는 상대적으로 가장 낮은 점수를 기록하였다. 그러나 국가마다 중점을 두어야 할 평생교육 분야가 있으며, 본 연구에서는 각 BRICS 국가들의 평생학습 체제의 강점 및 약점을 비교분석하였다. 본 연구는 평생교육과 관련된 정책을 평가하고 NLLS 경쟁력을 높이기 위한 의사결정의 준거 및 BRICS 국가의 NLLS 현황을 알 수 있는 기초자료로 활용될 것으로 기대된다.

■ 중심어 : | 브릭스(BRICS) | 델로스 보고서(Delors Report) | 평생교육의 4대 기둥(배움을 위한 학습, 일을 위한 학습, 함께 살기위한 학습, 존재를 위한 학습) | 글로벌평생학습인덱스(GLLI) |

Abstract

The aim of this study is to measure and evaluate competitiveness of lifelong learning systems of BRICS countries in the respect of National Lifelong Learning System (NLLS). To analyze the data, this study used the mechanism model and 32 indicators and 12 sub-factors developed to measure the NLLS of developing countries. As a result of the Global Lifelong Learning Index (GLLI) measurement, China and Russia were relatively strong, while Brazil and South Africa formed the middle group. India scored relatively low. However, there are areas of lifelong education that each country should focus on, and this study compared and analyzed the strengths and weaknesses of the lifelong learning systems of each BRICS country. It is expected that the findings of this study will be used as standards to evaluate lifelong learning-related policies and make decisions to raise NLLS competitiveness, and as basic materials to know current NLLS situations of BRICS countries.

■ keyword : | BRICS | Delors Report | Four pillars of lifelong education(Learning to Know, Learning to Do, Learning to Be, Learning to Live Together) | Global Lifelong Learning Index (GLLI) |

I. Introduction

With the hegemony of the economic system

shifting from the industrial society to knowledge-based society, competitive methods among countries are fundamentally changing.

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Countries began to compete with each other based on knowledge levels of their peoples. As such knowledge should be continuously renewed and re-learned, life-long education is developing as an area of international learning and strategy. In addition, with the change of learning hegemony in knowledge society, lifelong education is becoming increasingly important.

In addition, emerging economies have become a new axis of world economy[1]. Emerging economies are those countries which have achieved rapid economic development and supported the free market economic system[2]. There have emerged various such countries including BRICS[3][4]. In the early 2000s, in particular, Goldman Sachs, investment firm, called the five countries high in growth potentials, Brazil, Russia, India, China, and South Africa as BRICS[5]. It predicted that BRICS would economically grow rapidly, and become a strong group of countries

by 2050. While the GNPs of those countries were only 15% of those of G6 (America, Japan, Germany, England, France, and Italy) at that time, Goldman Sachs predicted that the economies of BRICS would catch up the latter in 40 years[6].

What drove Goldman Sachs to predict like that was based on human and material resources such as huge territories, huge populations, and abundant natural resources those countries possess[7-10]. While BRICS have abundant natural resources like oil, natural gas, and agricultural produce, the biggest merit of the group is the fact that, if combined, the populations of those countries reach as much as 40% of the world population. Unlike advanced countries whose growth has

reached a stalemate, emerging economies are high in growth potentials. In addition, to continue to grow, those countries need to develop their human resources development. Therefore, it is a priority to diagnose Lifelong Learning competitiveness of those countries.

In addition, given the proportion of the global population occupied by these BRICS countries, it is meaningful that the promotion of lifelong education in the BRICS countries can have a great effect on the welfare of mankind. From the perspective of South Korea, the political and economic weight of these BRICS countries on the international stage is becoming increasingly important. Accordingly, it is very important for Korea, which has a large proportion of international trade, to analyze the level of lifelong education in these BRICS countries and to promote mutual cooperation through lifelong education cooperation. In particular, the fact that education played a significant role in Korea's development is meaningful in analyzing the level of lifelong education in these BRICS countries and enhancing the possibility of cooperation in the field of lifelong education in the future.

Despite social demands for lifelong learning, there have been not enough researches and practical tools. While how effectively and efficiently a country establish a lifelong learning society is important in improving life quality and acquiring learning hegemony, there are not sufficient methods to diagnose and evaluate which countries do well on such standards. Existing researches on lifelong education in BRICS have tended to analyze human resources development rather than lifelong education[7][8][11][12].

Based on above discussions, this study set its

research aims as follows. First, it wanted to measure and analyze Lifelong Learning competitiveness of BRICS among developing countries. Second, it aimed to extract common factors among BRICS countries, and merits and demerits of each country. To achieve the research aims, this study measured and analyzed Lifelong Learning system of BRICS and other developing countries. Specific research questions are as follows. 1) What is the level of Lifelong Learning of BRICS countries among developing countries? 2) What are common factors of Lifelong Learning of BRICS and merits and demerits of each country?

II. Literature review

1. Development of Lifelong Education

The definition of lifelong education of UNESCO was suggested by Paul Lengrand. At the International Committee for the Adult Education (ICAE) of UNESCO in 1965, Lengrand presented the definition of lifelong education, and it was adopted by UNESCO. In contrast, OECD focuses on economic development through job capacity development. That is, job capacity-oriented lifelong education views continuous cycling between education and jobs throughout one's life[13].

The followings are definitions of lifelong education by different scholars. Lengrand defined lifelong education as the integration of education from birth to death (vertical dimension) and society-wide one (horizontal dimension). He emphasized integration and inclusiveness of lifelong education[14]. Dave[15] defined lifelong education as the process where individuals and groups develop their special

capacities to improve life quality. Kim[16] defined it as the process of pursuing improvement of life quality through integrating vertical level learning from cradle to grave and horizontal level learning of family education, social education and school education. Through the process, lifelong education pursues self-actualization and social development, according to Kim. Besides, Duke & Hinzen[17] emphasized that lifelong education is an essential element of economic development and social development. Furthermore, they argued that laws and regulations for adult education should be formed in public and private spheres in consistent ways.

And, some argued that lifelong education is essence of development of poor countries[18][19]. And, various researches compared lifelong educations of different countries. Tuşa, Voinia and Dumitraşcu[20] compared lifelong education in France, Germany, Finland, and Romania. They concluded that countries needed to exchange information and experiences on lifelong education, and that strategic cooperation among them should be increased.

There have been researches on lifelong education among developing countries. But, those studies mainly focus on basic-level education. In particular, Preece[21] pointed out that lifelong education had been led by advanced countries, and that, as less developed countries had different views on it from advanced countries, it was necessary to deal with it from the perspective of less developed countries. Bossone and Cirasino[22] proposed the challenges less-developed countries should overcome to establish the lifelong education system. They argued that those countries should

expand learning opportunities and provide learner-oriented lifelong education system. They also argued that the governments should play more active roles in it, and they need to benchmark good practices of other countries.

However, despite such existing researches, there are not sufficient researches comparing lifelong education in developing countries including BRICS. In addition, there are not enough researches in how different the systems are among emerging countries.

2. Lifelong education and Human Resource Development of BRICS

Considering that the populations of BRICS reach as much as 4 billion, it is very important to do researches on human resources development of those countries. Such researches are important in the sense that they can affect similar researches on human resources development in other developing countries[12]. Zavyalova and Kosheleva[10] suggested the relationship between human resources development and state competitiveness. According to them, while education levels and growth potentials of Brazil and Russia are higher than China and India, effective use of human resources development of China and India was higher than that of Brazil and Russia. In addition, Ardichvili[7] found that, in levels of human resources development, Brazil and Russia are higher than China and India, and that, while the latter countries have implemented remarkable state-led programs in elementary, middle and high schools and job education parts during the last decade, the former countries lack comprehensive long-term plans.

Tomé[9] analyzed BRICS in terms of human

resources development. According to him, while Brazil is weak in supplying human resources, it allows some foreign human resources to enter the country to balance supply and demand in the market. Russia is strong in supply of human resources, and movement of people plays an important role to balance supply and demand of human resources in the country. China has experienced improvement of supply of human resources, and movement of people within China plays the role of balancing supply and demand of human resources. But in the case of India, it is in a swamp of low quality human resources and low quality jobs.

Kolachi & Shah (2013) divided BRICS countries into different groups and compared their HRD characteristics. First, Kolachi & Shah[11] viewed that while Brazil, China, and Russia tried to pursue HRD strategies and systems by adjusting them to their cultures and situations, India and South Africa did not, and that the colonial past histories of India and South Africa affected favorably to their relationships with advanced countries. In addition, according to Kolachi & Shah[11], as the two countries use English as their official languages, India and South Africa are relatively easier to adopt HRD strategies and training methods developed in advanced countries. Meanwhile, in the HRD perspective, Armijo[6] pointed out challenges of BRICS countries: environmental problems and relative shortage of natural resources for China; shortage of infrastructure and regional conflicts for India; lack of capacities for rapid development for Brazil; corruption for Russia.

3. Global Lifelong Learning Index (GLLI)

Kim[23] developed Global Lifelong Learning

Index (GLLI) to diagnose and evaluate competitiveness of lifelong learning system of advanced countries and developing countries, and applied it to 33 countries. GLLI is based on the lifelong learning frame called 'four pillars' suggested in the Delors Report (1996), and adopted by UNESCO. To satisfy demands of learners, UNESCO developed the model based on Faure Report[24]. Faure Report[24] and Delors Report[25] played important roles in establishing lifelong learning as the global education paradigm[26].

The Faure Report defined lifelong learning using 'learning society' and 'lifelong education'. Unlike the traditional learning model using age group approach and spatial approach, this model emphasizes constitutive contents of lifelong learning. And, it shows mutually organic linkage in human life. The Delors Report titled 'Learning; the Treasure Within' suggested four pillars of lifelong education: 'Learning to Know, 'Learning to Do, 'Learning to Be, 'Learning to Live Together'.

Table 1. UNESCO definition of the four pillars of learning[25]

Learning to know	By combining a sufficiently broad general knowledge with the opportunity to deal in depth with a small number of subjects. This also means learning to learn, so as to benefit from the opportunities provided throughout life.
Learning to do	In order to acquire not only an occupational skill but also, more broadly, the competence to deal with many situations and work in teams. It also means learning to do in the context of young people's various social and work experiences which may be informal, as a result of the local or national context, or formal, involving courses, alternating study and work.
Learning to live Together	By developing an understanding of other people and an appreciation of interdependence — carrying out joint projects and learning to manage conflicts — in a spirit of respect for the values of pluralism, mutual understanding and peace
Learning to be	So as better to develop one's personality and be able to act with even greater autonomy, judgment and personal responsibility. In that connection, education must not disregard any aspect of a person's potential: memory, reasoning, aesthetic sense, physical capacities and communication skills.

The methodological characteristics of GLLI are that in applying the method to advanced countries and developing countries, it went through various stages of validation (Kim, 2016). Specifically, GLLI has been developed through the following procedure. First, it analyzed a wide range of related researches based on various concept models and measurement models, and selected core indicators per factor. Besides purposiveness of indicators, principles such as statistical reliability, comparability of data across countries, clarity, and possibility of investigation were applied. Second, to boost content validity of indicators, Kim got consultation from specialists, and revised the indicators and compensated for them. Finally, Kim built GLLI with 12 sub-factors and 32 indicators.

Based on them, a series of researches have been done to measure competitiveness of GLLI. First, those studies have collected the data on detailed indicators as recent as possible. Second, they used the multiple imputation method to measure missing values. Third, to standardize different sets of data, they set the scale ranging from 1 to 7. Finally, they have calculated GLLI scores considering previously given weights, and analyzed them.

III. Method

This study was performed with the aim of comparing GLLI competitiveness of BRICS among 52 developing countries and among BRICS countries using the values of GLLI indicators. Based on Global Lifelong Learning Index developed by Kim (2016), this study used

the related data of BRICS and other countries in 2020.

By comparing data on lifelong education in BRICS and other developing countries, this study could get information BRICS countries can benchmark. In addition, by comparing lifelong education systems of BRICS countries characterized by large natural resources, population, and landmass with one another, this study could analyze competitiveness of those systems in policy and institutional aspects.

Table 2. 52 Developing Countries

Algeria, Argentina, Azerbaijan, Bangladesh, Brazil, Bulgaria, Cambodia, Chile, China, Colombia, Croatia, Dominican Republic, Ecuador, Egypt, Estonia, Greece, Guatemala, Hungary, India, Indonesia, Iran, Israel, Jordan, Kazakhstan, Kenya, Kyrgyz Republic, Lithuania, Malaysia, Mexico, Morocco, Nigeria, Oman, Pakistan, Panama, Paraguay, Peru, Philippines, Poland, Portugal, Romania, Russia fed, Slovak Republic, Slovenia, South Africa, Spain, Sri Lanka, Thailand, Turkey, Ukraine, Uruguay, Venezuela, Vietnam
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Consequently, understanding of detailed indicators and research targets can help to understand this research. Concretely, here, this study examined research targets and concrete detailed indicators of Global Lifelong Learning Index.

On the definition of developing country, this study adopted the operational definition of it, 'the country which has potential to enter the group of advanced countries'[27]. Setting the criteria of per capita income(PPP, less than 40,000 USD), population, size of land, and economic structure in choosing a specific country as a developing country, this study chose 52 countries including BRICS as developing countries.

To measure competitiveness of lifelong education systems of developing countries, GLLI[23] was used. GLLI consists of 12 sub-factors and 32 indicators. Its validity was tested to specialists in Korea and other

countries, and, finally, its concurrent validity was identified by analyzing how GLLIs of developing countries are related with per capita income and related international indicators. In particular, GLLI used jury opinion to evaluate content validity. This is a method of judging whether an indicator well represents all items by the judgment of an expert. Logical review on the system of items and expert advice is also a way to improve the validity of the scale. GLLI went through a validation process for professionals related to lifelong education in each field.

However, in the process of newly collecting GLLI data in 2020, there were some changes in indicators. The reason was that some data were no longer revealed in 2020. Thus, this study replaced the old indicator with a new one. The final revised indices are shown in [Table 3].

Table 3. Composition of Global Lifelong Learning Index (2020)

Factor	Sub-Factor	Indicators
Learning to know	1.1 Quantity	1.1.1 Out-of-school rate for children of primary school age
		1.1.2 Gross enrolment ratio, secondary
		1.1.3 Gross enrolment ratio, tertiary
		1.1.4 Literacy rate, adult total (% of people ages 15 and above)
	1.2 Quality	1.2.1 Pupil-teacher ratio. Primary
		1.2.2 Pupil-teacher ratio. Secondary
		1.2.3 Number of world Top 700 University
		1.2.4 public expenditure on education
Learning to do	2.1 Quantity	2.1.1 Firms offering formal training(% of firms)
		2.1.2 employment rate
		2.1.3 Proportion of youth not in education, employment or training (%)
		2.1.4 Labor force with advanced education (% of total working-age population with advanced education)
	2.2 Quality	2.2.1 On-the-job training
		2.2.2 Long-term unemployment (% of total unemployment)
		2.2.3 Attract talent
		2.2.4 Pay and productivity
Learning to live together	3.1 Inclusion in social networks	3.1.1 Gini Index
		3.1.2 Political and Operational Stability
	3.2 Participation	3.2.1 Participation of the population
		3.2.2 Voter turnout level

	in active citizenship	
	3.3 Globalization and social security	3.3.1 Globalization
		3.3.2 Total Persons Convicted
	3.4 Tolerance, trust and openness	3.4.1 Extent of discrimination
		3.4.2 Civil liberties
Learning to be	4.1 Participation in learning through social activity	4.1.1 Entertainment and Media Market
		4.1.2 ICT Development Index
	4.2 Education attainment in life	4.2.1 Educational attainment at least completed primary
		4.2.2 Percentage of population with tertiary education
	4.3 Self-directed learning	4.3.1 Number of estimated Internet users as a percentage of total population
		4.3.2 School life expectancy
	4.4 Stability of life and work	4.4.1 Suicide rates
		4.4.2 Vulnerable employment, total (% of total employment)

This study revised and compensated for indicators to evaluate state-level GLLI according to the following procedure. First, based on existing GLLI indicators, this study replaced the indicators for which data collection was difficult. Second, after settling on indicators, this study extracted data of all the countries referring to various reports, statistics, and online databases. Third, through the process of imputation of missing values, standardization, and calculation of scores per indicator, this study extracted GLLI competitiveness indices of different countries. Finally, this study analyzed how GLLI indices are related with per capita income among different countries.

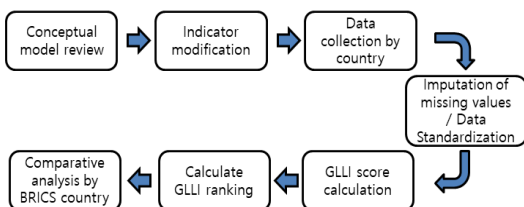


Figure 1. Procedure to develop and calculate the GLLI

IV. Findings

1. GLLI competitiveness levels of BRICS

Based on their huge landmasses, large populations, and potentials for rapid economic growth, BRICS countries are strong candidates which may lead global economy by 2050. However, except for such common factors mentioned above, there are little more common factors. While average scores of Global HRD Competitiveness Index among BRICS are similar to those of other developing countries, the average scores of Global Lifelong Learning Index among BRICS vary, and the ranking order of the scores among them was China, Russia, Brazil, South Africa, and India in descending order.

Based on scores of the Global Lifelong Learning Index, those countries could be classified into three groups: the strong group (China and Russia), the intermediary group (Brazil and South Africa), and the weak group (India). Based on per capita income levels, those countries could be classified into three groups: the high economy group (Russia and China), the middle economy group (Brazil and South Africa), and the low economy group (India). When we compare the scores of Global Lifelong Learning Index and economic levels, we can find that the higher the score of Global Lifelong Learning Index of a country is, the higher its economic level is.

Concrete result per factor is as follows. In the scores of the factor, 'learning to know', Russia, China, and Brazil were higher than South Africa and India, and those scores were higher than the mean score of all developing countries (4.21). The scores of South Africa and India were lower than the mean score.

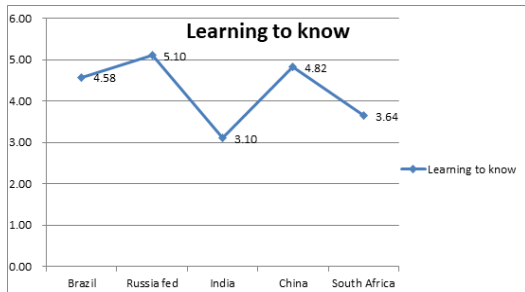


Figure 2. 'Learning to know' score of BRICS countries

In the scores of the factor, 'learning to do', China was the highest among BRICS countries, and its score was higher than the mean score (3.90) of all the developing countries. While the scores of Brazil, Russia, and India were lower than the mean score of all the developing countries, they were close to the mean. However, the score of South Africa, the lowest among BRICS countries, was quite low among all the developing countries.

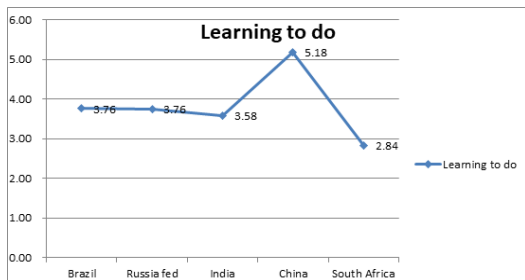


Figure 3. 'Learning to do' score of BRICS countries

In the factor, 'Learning to live together', the score of India was the lowest among BRICS countries, but was higher than the mean score among all the developing countries. The difference in the scores among BRICS countries was relatively small.

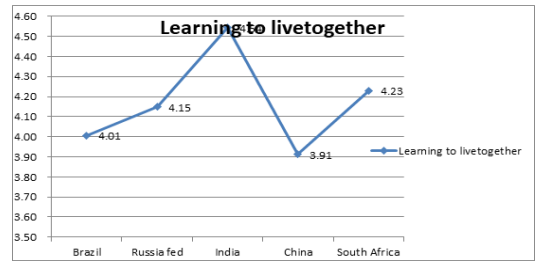


Figure 4. 'Learning to live together' score of BRICS countries

In the factor, 'Learning to be', while the scores of Brazil and Russia were higher than other BRICS countries, only that of Brazil exceeded the mean score (4.15) of developing countries. Those of China and South Africa were a little lower than the mean score, and that of India, the lowest among BRICS countries, was quite lower than the mean score.

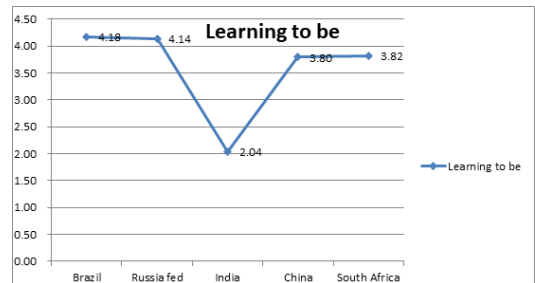


Figure 5. 'Learning to be' score of BRICS countries

V. Conclusion

Up to now, this study examined current situations of lifelong education systems of BRICS, and relative merits and demerits of those systems. Therefore, through this study, the GLLI characteristics of each BRICS country can be presented as follows. First, Brazil showed strength in terms of Learning to know and Learning to be, but showed relatively weak points in Learning to do and Learning to live

together. In summary, Brazil has a well-equipped education system for basic knowledge in terms of lifelong learning, but it seems that the education system needs to be strengthened in terms of Learning to do and Learning to live together to secure quality human resources in the future.

Russia showed strength in terms of learning to know. However, Russia was relatively weak in terms of learning to do. In particular, as the 'Country capacity to retain talent' and 'Employee training' indicators show low figures in terms of learning to do, nationwide efforts are needed to strengthen the learning to do aspect to achieve sustainable development of the country in the future.

South Africa showed relatively good results in terms of Learning to live together and Learning to be, but showed relatively weak results in terms of Learning to know and Learning to do. In this context, as a priority in terms of GLLI in the future, efforts to improve overall in terms of learning to know and learning to do are required.

China showed strength in terms of learning to know and learning to be. However, China was weak in terms of learning to live together. Since market opening, China has been actively fostering HRD in terms of economic growth and strengthening national competitiveness. However, the side effects of growth, such as rising labor costs, regional imbalance, education between the rich and the poor, and effective use of human resources, are problems that need to be overcome.

India was shown to be relatively good in terms of learning to live together, but it showed weaknesses in other aspects of GLLI overall. In particular, it showed the lowest ranking among

BRICS countries in terms of learning to know and learning to be. India is a country with a complex social composition due to various ethnicities, languages, and religions. At the same time, it seems that various problems must be overcome in various aspects such as regional imbalance, caste system, male-dominated society, illiteracy rate, unemployment rate, low wages and low quality of employment.

While BRICS countries are classified as a specific group of countries in terms of populations and resources, they were found to have various levels in the aspect of global lifelong learning, and different tasks each of them should tackle.

First, by evaluating and comparing competitive levels of lifelong learning systems of BRICS countries, this study suggested merits and demerits of those countries. By providing information on how to maintain or strengthen merits and how to compensate for demerits of lifelong learning systems among those countries, this study offered the basis to check and strengthen national competitiveness of BRICS countries.

Second, by demonstrating that national economic levels and lifelong learning systems are closely related with, this study provided the foothold on which BRICS countries can expand attention to lifelong learning system, and pursue continuous national development through lifelong learning system. Considering the leading roles those countries play among developing countries, this study will serve as the basis for further studies on lifelong learning system among BRICS countries and other developing countries.

In conclusion, BRICS countries are similar in terms of population and natural resources.

However, each country has its own challenges to be solved in terms of lifelong education, and this study evaluated, compared and analyzed the competitiveness of the lifelong learning system of each BRICS country.

This study is expected to be used as a basis for evaluating policies related to lifelong education, as a basis for decision-making to enhance the competitiveness of lifelong education, and as basic data to know the status of the lifelong education system in BRICS countries. Also, given that BRICS countries have a large influence on other developing countries, this study will serve as a cornerstone of research on the development of lifelong education in developing countries and BRICS countries.

A limitation of this study is that The GLLI ranking for each BRICS country in this study only indicates a relative position, and does not mean that the GLLI factor is an absolute country-specific number. However, in the follow-up study, the limitations of this study can be overcome through a more detailed and in-depth review of the BRICS countries based on the results accompanied by an in-depth analysis and presentation of lifelong education policies.

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[Appendix] Ranking of GLLI Competitiveness index

Ranking	Countries	GDP Per Capita (PPP) USD (IMF 2020)	GLLI Score (2020)	Learning to Know		Learning to Do		Learning to Livetogether		Learning to Be	
				Score	Ranking	Score	Ranking	Score	Ranking	Score	Ranking
1	Estonia	37,033	5.12	5.22	4	4.84	3	5.07	5	5.32	4
2	Israel	39,126	5.00	4.84	16	4.77	5	4.90	9	5.50	1
3	Slovenia	38,506	4.99	5.20	5	4.41	13	5.02	7	5.35	2
4	Spain	38,143	4.92	5.24	3	3.81	30	5.28	2	5.33	3
5	Portugal	33,131	4.88	5.26	2	4.36	17	5.04	6	4.86	11
6	Lithuania	38,605	4.78	5.12	7	4.37	16	4.73	13	4.89	10
7	Slovak Republic	32,184	4.71	4.16	31	4.13	25	5.46	1	5.10	7
8	Uruguay	21,338	4.70	5.16	6	3.92	27	5.08	4	4.67	15
9	Kazakhstan	26,589	4.70	4.95	10	4.19	23	4.45	23	5.22	5
10	Poland	33,739	4.70	4.89	14	4.26	19	4.98	8	4.66	16
11	Chile	23,455	4.70	4.79	18	4.87	2	4.58	17	4.56	19
12	Malaysia	27,287	4.68	4.68	21	4.78	4	4.76	12	4.50	20
13	Greece	29,045	4.64	5.58	1	3.14	44	4.84	10	5.01	9
14	Argentina	20,370	4.55	5.01	9	3.87	28	4.76	11	4.57	18
15	Hungary	32,434	4.55	4.90	12	3.52	38	5.11	3	4.65	17
16	Croatia	27,681	4.50	4.90	13	3.29	42	4.72	14	5.07	8
17	China	17,206	4.43	4.82	17	5.18	1	3.91	39	3.80	41
18	Oman	29,908	4.42	4.91	11	4.48	8	3.18	52	5.12	6
19	Peru	11,516	4.42	4.66	22	4.75	6	4.41	24	3.86	36
20	Bulgaria	23,741	4.35	4.22	28	3.75	34	4.66	16	4.75	13
21	Mexico	18,804	4.31	4.45	24	4.17	24	4.46	21	4.14	28
22	Russia fed	27,394	4.29	5.10	8	3.76	33	4.15	33	4.14	29
23	Ecuador	10,617	4.28	4.34	25	4.38	15	4.25	29	4.16	27
24	Azerbaijan	14,499	4.27	4.28	26	4.33	18	3.77	44	4.71	14
25	Turkey	28,294	4.27	4.78	20	3.30	41	4.49	20	4.50	21
26	Panama	30,034	4.24	3.65	42	4.19	22	4.71	15	4.40	22
27	Thailand	18,073	4.17	4.11	34	4.45	12	4.26	28	3.85	37
28	Ukraine	12,710	4.15	4.88	15	3.07	46	4.39	27	4.27	24
29	Kyrgyz Republic	4,824	4.13	4.79	19	3.63	35	4.20	32	3.91	33
30	Brazil	14,563	4.13	4.58	23	3.76	32	4.01	37	4.18	26
31	Romania	30,141	4.12	3.95	37	3.77	31	4.39	25	4.35	23
32	Vietnam	10,755	4.11	3.96	36	4.47	11	4.49	19	3.52	43
33	Indonesia	12,345	4.07	4.21	29	4.40	14	4.21	31	3.47	44
34	Colombia	14,137	4.02	4.17	30	3.98	26	4.08	35	3.85	38
35	Philippines	8,574	4.01	3.93	38	4.24	20	4.02	36	3.83	39
36	Paraguay	12,503	4.00	3.76	41	4.19	21	4.09	34	3.99	30
37	Sri Lanka	13,114	3.92	4.06	35	3.85	29	4.39	26	3.38	45
38	Dominican Republic	18,783	3.79	4.22	27	3.59	36	3.41	49	3.91	31
39	Guatemala	8,267	3.73	3.30	46	4.48	10	3.77	43	3.35	46
40	Morocco	7,609	3.68	3.85	40	3.15	43	3.79	42	3.91	32
41	Kenya	4,993	3.65	2.85	48	4.48	9	4.46	22	2.80	48
42	Algeria	11,041	3.64	4.12	33	2.69	51	3.86	40	3.90	34
43	South Africa	11,911	3.63	3.64	43	2.84	47	4.23	30	3.82	40
44	Venezuela	7,704	3.63	3.39	44	2.73	48	3.58	48	4.82	12
45	Egypt	12,719	3.49	3.91	39	2.54	52	3.72	45	3.80	42
46	Iran	11,963	3.48	4.12	32	2.71	49	3.19	51	3.88	35
47	Cambodia	4,441	3.40	2.47	49	4.53	7	3.93	38	2.68	49
48	Jordan	10,007	3.39	3.36	45	2.69	50	3.25	50	4.24	25
49	India	6,284	3.32	3.10	47	3.58	37	4.54	18	2.04	51
50	Bangladesh	5,139	3.10	2.14	50	3.45	39	3.83	41	2.97	47
51	Pakistan	5,160	2.73	1.68	51	3.11	45	3.64	46	2.49	50
52	Nigeria	5,066	2.41	1.14	52	3.40	40	3.59	47	1.49	52
Average			4.14	4.21		3.90		4.31		4.15	