

Big Data Analysis for Child Well-being on Academic Research

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Abstract

Background/Objectives: This study is to examine the well-being of child in the world of child's life such as development, education, and play in a phenomenological manner.

Method/Statistical Analysis: We based data collected through educational and academic information sources (RISS) search as big data, and analyzed the keywords and the network analyzed by the 'well-being', 'wellness' and 'Chamsari' keywords. The frequency, ranking, and connection of the keywords were analyzed through the process of processing the collected unstructured text into the data suitable for research and analysis.

Findings: This study tried to reveal the reality of child well-being through phenomenological perspective based on the understanding of experts about child well-being through academic big data analysis. The results of the study showed that psychological themes such as activities, body, emotion, subjectivity, and psychology were highly linked with child's well-being. Child who live well in the phenomenological attitude exhibition were distinguished from adults and they were justifying adult control and intervention by refracting them as immature beings. In addition, it points out that the uniqueness of individual existence undermines the originality of the existing child, and furthermore, it can realize the child's disaster by expanding the unique life style of the child's existence by the advancement of the fusion of expression through the subjective expression of the unique individual existence experienced by the child, and the dialogue based on the ethics with the other.

Improvements/Applications: This study suggests that the ideological foundation of living and human public service should be prepared.

Keywords: *Child Well-being, child wellness, big data, child development, child education, child play, phenomenological manner.*

Introduction

In 2015, the UN General Assembly was held in Incheon and adopted 17 Sustainable Development Goals (SDGs) which include "Well-being" and "Quality Education". It showed keen interest from the world in the role of education for "Child Well-being" and

understanding of the meaning of child well-being. Additionally, it was also seen as the mankind's efforts for spirit, practice, their orientation and attitude to open the communal future world by reflecting on human well-being in the course of development of human civilization and technologies through the understanding of child well-being^[1-2]. If we ask ourselves again about the question of child well-being, "how to live well?" means that, of course, "what do we have to do to live well?", or the questions of "what can we know" and "what can we do". They are all difficult questions to answer. But we all want to live well. Therefore, it is also a question that is constantly being asked by oneself and mankind^[3].

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It is no exaggeration to say that human culture

is a culture of technology. As such, the technology, science and human civilization have developed into one integrated dynamic mechanism that cannot be separated^[4]. Technical civilization has contributed to the co-prosperity of mankind, but has also given rise to the phenomenon of human alienation. Modern child are living precariously on the spire of the most innovative technological civilization with imminent singularity that artificial intelligence surpasses humans^[4]. Child well-being is a question of “how can child perceive and form their own world in order to explore their own world well?” In addition, it can be also seen as creating an educational and social support system for this goal^[1]. To this end, adults around them should look at the very existence of child as they are. Through the various phenomena and languages that look into child well-being, we should not only improve our understanding of child well-being but also come up with support measures for child well-being. Through the Web (the meaning of information access through the Internet,

such as web sites and web pages) where human perception and consciousness are actively expressed and shared in language, we are able to have access to a common understanding of child well-being^[2].

The vast amount of data on the Web is called big data. Big data analysis takes an empirical approach to analyze such big data with logic and mathematical approaches for the “3V” characteristics of “Volume,” “Velocity” and “Variety.” Furthermore, big data is also defined as “5V” with added “Value, Insight” and “Very Complexity”^[5-7].

Three big questions in philosophy are: “how to live”, “how to know?” and “how does that happen”; while child well-being asks “how can a child perceive and organize his/her own world and move forward to this world?” To this end, we need to look inside and outside the child’s living world and look back at the adults inside the phenomenon^[8-10].

“From the subject of recognizing the world and the object of the world, how far in that sense can child go into the situation itself?”, “how close can child experience and perceive things?”, and “how can they finally reveal that knowledge?”: these questions are the purpose of child well-being’s big data analysis.

Method

This study defined academic works gathered from

academic databases used by domestic and foreign experts as big data and collected academic data on the subject of ‘well-being’, ‘wellness’ and ‘Chamsari (referring to “well-being” in Korean)’ on the academic research information service (www.riss.kr). The collected text data were compiled by removing unnecessary terms, symbols, numbers, etc. and adding terminologies to refine the data, and dividing the sentences into minimum units through the morphological analysis technique among natural language processing techniques. Based on the frequency and relationship of the key keywords, the researchers wanted to reveal their understanding and perception of the phenomenon.

The frequency, ranking, and connection of the keywords were analyzed through the process of processing the collected unstructured text into the data suitable for research and analysis^[11]. First of all, a word frequency analysis table was presented through the keyword analysis and visualization analysis was performed on the data. Second, the relationship between major keywords was analyzed through the keyword network analysis. Betweenness centrality was a measure of centrality in a graph based on shortest paths. Eigenvector centrality is a measure of the influence of a node in a network. We analyzed the statistical analysis of the study by using R studio.

Result and Discussion

1. Child Well-being on Domestic Academic Research: According to the frequency analysis of big data keywords, experts’ data on child well-being showed that there were about 60 times more overseas studies (12,239 cases) than domestic studies (206 cases), indicating that interest in and research on child well-being is taking place overseas more actively than in Korea. The analysis of big data keywords for domestic academic research on child well-being is as follows in Table 1 and Figure 1. The main theme related to child well-being was the words such as body, physical, and activity. And the main related words were activity, body, education, nurture, play and toys. Interest in physical health was higher than that in emotions, society and spirit. The main topics of play, education and nurture in child reflected high interest and understanding in play, development and upbringing environment as to child well-being.

spirituality. In Korea, it is also necessary to understand and pay attention to the child's disaster based on the OECD's Child Well-Being Indicators (physical, housing and environment, educational, health and safety, risk behavior, quality of school life) and the UN Convention on the Rights of Child (survival, protection, development, participation)^{[8-9][11]}.

Conclusion

Discussion and conclusion of big data research to provide basic data for the preparation of measures for child well-being are as follows: first, overseas academic research was being conducted more vigorously compared to Korea's domestic academic research on child well-being, showing the need for more increased interest and researches in child well-being. So we should consolidate the basis of the solution for child well-being. Second, while domestic studies for child well-being mostly focused on visible patterns of behavior, such as child's body, activities and play, overseas research sheds light on child well-being in various ways with a diverse approach to philosophy and theory, such as cognitive subject, sentiment, spirit and spirituality. Thus, Korea needs to provide in-depth insights into their human and physical surroundings and interactions between child for child well-being, thereby creating a virtuous cycle of new horizon and convergence on play, development and education for child well-being through social consensus neck stretching and extensor reinforcement exercise, which are commonly used in clinicians.

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