

A Study on the Web-based International Exchange Project for Global Education

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Abstract: Background/Objectives: The purpose of this study is to analyze the significance of implementing the web-based international exchange project for global education of young children. **Methods/Statistical analysis:** The study was conducted in a Korean kindergarten with the 5-year-old young children. The participants took part in the web-based international exchange learning activities with young children from 3 different countries. Twelve volumes of daily teaching plans for 3-year-long international exchange activities were the focus of the data analysis after implementing the web-based international exchange learning activities into the national curriculum.

Findings: According to the research results, the identified areas of web-based international exchange activities based on the national curriculum were five areas such as body and exercise health area, social relation area, artistic experience area, communication area, and nature inquiry area. Social relationship area was the most significant area of the application process, followed by communication area, artistic experience area, nature inquiry area, and physical and health area. The most dominant type of implementing the web-based international exchange learning activities into the national curriculum was the integrated type of communication area and social relationship area. This type was mainly seen in storytelling activities when the participants shared the results of the daily activities with foreign friends by making videos and writing letters. There were also several integrated activity types which implemented communication area, social relationship area, and artistic experience area into the national curriculum. Many of them showed up in the process of sharing the results of art and music activities with foreign friends through the web-based interaction.

Improvements/Applications: More interactive research should be conducted by establishing a solid and detailed research design with more diverse educational organizations from different countries. Further research effort should be also accompanied to support the professional development of preschool teachers for the web-based international exchange project for the global education of young children.

Keywords: International Exchange Project, Web-based Learning, Young Children, National Curriculum, Global Education

I. INTRODUCTION

In keeping with the current technological development and the trend to integrate innovative paradigm into education, the basic direction of the 6th national curriculum initiated by Korean Ministry of Education has aimed at fostering autonomous and creative ability of young children who will lead the globalization and information age of the 21st century. In other words, the national curriculum has focused on

helping young children to build the appropriate awareness for global understanding through the use of various multimedia from early childhood. Despite the initiation of the national curriculum, many educators and parents still have a negative view of technology-integrated activities in early childhood education. The Internet use rate of Korean young children with the age from 3 to 9 was 79.8% in 2015 and 82.9% in 2016. It is found that about two thirds of the young children using the Internet are playing games and entertainment [1]. Because of this fact, many educators and parents are concerned that computer-related activities may have the adverse effect on early childhood education. They believe that the use of computer or Internet may interfere with young children's cognitive and affective development and prevent interpersonal interaction essential for cultivating young children's social skills. However, technology can provide the pleasant and rich experience for young children, and it has positive effects such as entertainment, extra activities, and fellowship experience [2]. It also provides an opportunity to gain access to a wide range of information and cultural experiences, thereby providing a broad perspective that meets globalization [3].

The development of transportation and communication along with the advances in technology has played an essential role to minimize the restrictions of time and space, linking people from diverse parts in the world. In this era of technology, various alternative experiences are possible through web-based international exchange projects [4]. Especially, since young children understand the world through specific and practical experiences rather than abstract information, applying international exchange experience to connect foreign friends based on the Internet can be effective in recognizing the world and respecting friends from different countries [5] [6]. A more realistic understanding can be gained by directly experiencing lives in other regions through web-based international exchange programs [7]. Among various technological applications, social networks are easy to build social relationship of members and help mutually connected users to share various information and contents [8] [9]. Therefore, web-based international exchange projects are convenient and efficient in encouraging young children to experience intercultural understanding. The web-based international exchange projects can also help teachers to conduct international exchange projects based on the annual national curriculum.

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The purposes of this study are to analyze the process of web-based international exchange learning activities for young children with three countries from Asia, Africa, and America for three years and provide educators and researchers with insightful data for international exchange programs for global education of young children.

II. RELATED RESEARCH

Global intercultural education aims to help learners to appreciate the distinctiveness and multiplicity of diverse cultures, to embrace identity and interconnectivity, and to form a connection and reciprocal respect with others [10]. The global intercultural exchange project is significant since it helps for the participants to understand the lives of people in the different areas and to develop more genuine understanding of them [7]. Figure 1 shows the advantages of international exchange programs.

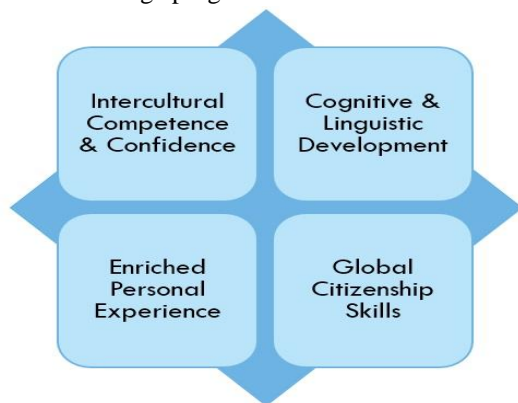


Fig 1. The Advantages of International Exchange Programs

The development of new technology and the social networks along with the use of Internet can facilitate the process of the international and intercultural exchange process. The proper application of intercultural global education is essential in early childhood education as well. Early childhood is the stage for the young children to be able to realize differences among people and to start appreciating and embracing different cultures [11]. Children ought to be taught from young age to adopt different values, attitudes, social patterns, and lifestyles so that they can appreciate other people and cultures in order to harmoniously coexist [12]. The web-based international exchange project can be one of the effective and meaningful ways to support the harmonious coexistence among different people. As it is difficult for young children to make a long trip in order to experience intercultural interaction with foreign friends, it is suitable to provide them with the web-based intercultural exchange project. Authentic and meaningful opportunities should be offered for young children to share with foreign friends as part of the intercultural learning activities [13] [5]. According to other related research results, it was revealed that intercultural exchange learning activities were helpful in supporting the young children's intercultural understanding and awareness both in their own culture and in different cultures [10]. Teenagers who participated in an international program could realize the significance of respecting cultural diversities and developing mutual understanding [14]. However, few studies have yet scrutinized the impact of global intercultural learning

for early childhood education. Although some researchers have tried to investigate intercultural exchange programs, they failed to conduct a research for intercultural learning in diverse contexts. Moreover, these studies were conducted just on a short-term format, so it was not easy to identify what implications the research would have for the employment of the long-term intercultural exchange project. Other research results that surveyed intercultural exchange projects for young children were qualitative studies, so it was sometimes difficult to ascertain the objective results through detailed analysis [4][8]. Through the application of national curriculum for early childhood, it is possible to provide young children with the web-based international exchange program for global education. Ministry of Education enacted Nuri curriculum as the national curriculum in Korea for the young children with the age of 5 [15]. This national curriculum not only supports global intercultural learning but also boost understanding of Korean cultural legacy. Besides, national curriculum for young children helps educators to implement global intercultural exchange projects with more integrated ways because of the flexible curriculum design and management.

III. METHODS

3.1 Research Context

This study was based on the web-based international exchange project conducted in a kindergarten in the central region of Korea. The purpose of the project was to cultivate intercultural understanding of young children. The counterparts of the project were kindergartens from 3 countries in Asia, Africa and North America. Based on the activities of annual plans from the national curriculum, the web-based international exchange learning activities consisted of sharing photos and videos through the web such as email and Facebook. The participants also exchanged real artifacts by international surface mail. This international exchange project for global education was administered for three years. The study was conducted in two kindergarten classes with the 5-year-old young children. Twelve volumes of daily instructional plans for 3-year-long international exchange activities were the focus of the data analysis after incorporating the learning activities into the national curriculum. The analysis was based on both the weekly teaching plans and the yearly instructional plans. Five kindergarten teachers participated in this study and wrote yearly and weekly lesson plans. They graduated from 4 year universities and graduate schools for their professional development, and their working careers varied from 3 years to 10years.

3.2 Data Collection and Analysis

The data were collected from the activity journals which integrated the web-based international exchange projects in order to find out the related pedagogical areas based on the analysis of the national curriculum.



The daily teaching plans were collected to analyze the recurring themes proposed by national curriculum for 5-year-old young children. The topics suggested by the national curriculum were categorized by 14 areas such as kindergarten and friends, my family and me, animals and plants, my neighborhood, transportation systems, the environment and life, nature, health, safety, home appliances, the world, my country, foreign countries, and four seasons. First, in order to analyze the areas of integrating web-based international exchange learning activities into national curriculum, the list of 14 intercultural exchange learning activities in terms of lifestyle topics was identified. The researcher used a method to check whether each activity corresponded to the national curriculum area, such as body and exercise health area, social relation area, artistic experience area, communication area, and nature inquiry area.

Second, in order to analyze the application of web-based international exchange learning activities into national curriculum, it was analyzed how the intercultural exchange learning activities by life topics were linked with activities of certain area in the national curriculum. For example, in the case of a counseling play with foreign friends, children identified the troubles of the foreign friends with dialogues, made videos asking their foreign friends about their troubles, and then drew pictures or performed activities to solve the problems. After analysis, these activities were identified and categorized as integrated activities in which communication area, social relationship area, body and exercise health area were altogether involved. Figure 2 shows the research procedures of the web-based international exchange project for the global education of young children.

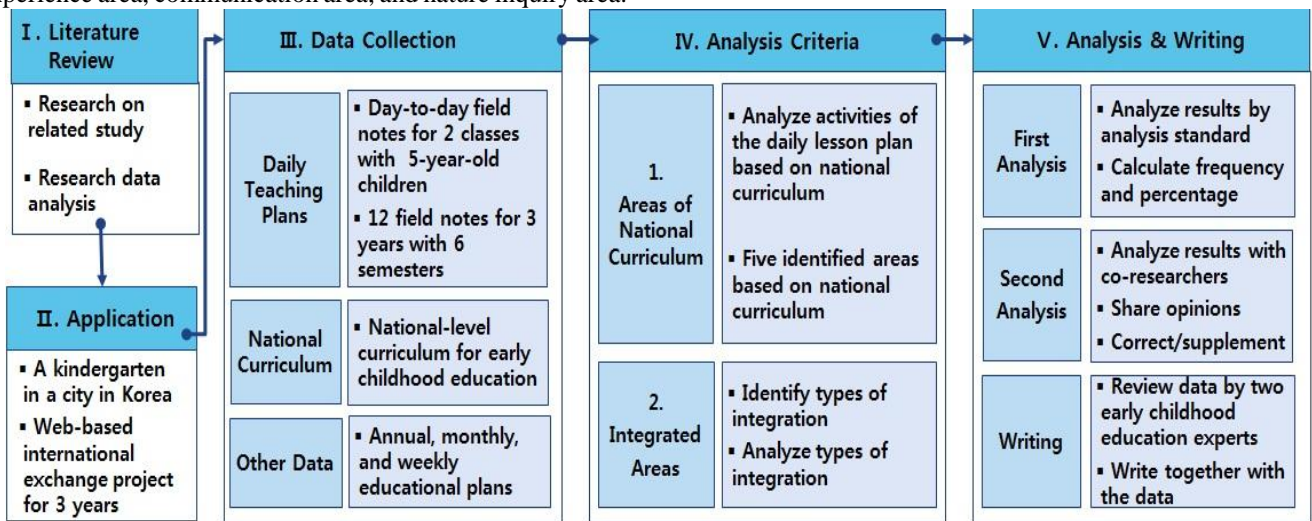


Fig 2. The Procedure of the Web-based International Exchange Project

IV. RESULTS

4.1 Web-based International Exchange Activities Based on National Curriculum

According to the research data, many of the web-based international exchange learning activities were led in the areas of communication and social relationship. The data showed that these learning activities were mostly to tell their foreign

friends about how they participated in the learning activities and what the outcomes were, and also to work together with foreign friends. Table 1 shows the results of the integrated application of the web-based international exchange learning activities in the health and physical area, social relationship area, artistic experience area, nature inquiry area, and communication area of the national curriculum for global education of early childhood.

Table 1. Areas of the Web-based International Exchange Activities Based on National Curriculum

Subject	Area of Nuri Curriculum					Total (%)
	Physical and Health	Communication	Social Relationship	Artistic Experience	Nature Inquiry	
Kindergarten	1(3)	12(34)	15(43)	7(20)	0(0)	35(100)
Spring	2(5)	13(34)	13(34)	6(16)	4(11)	38(100)
I and Family	2(5)	15(37)	16(39)	6(15)	2(5)	41(100)
Our Town	3(7)	16(36)	16(36)	5(11)	4(9)	44(100)
Health and Safety	10(27)	10(27)	10(27)	5(14)	2(5)	37(100)
Summer	5(8)	19(31)	19(31)	6(10)	13(21)	62(100)



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Vehicle	4(7)	15(33)	15(33)	7(15)	5(11)	46(100)
Our Country	6(8)	25(33)	25(33)	16(21)	3(4)	75(100)
Autumn	2(9)	7(30)	7(30)	3(13)	4(17)	23(100)
World	6(8)	24(32)	24(32)	15(20)	5(7)	74(100)
Living Tools	5(10)	12(24)	12(24)	9(18)	11(22)	49(100)
Winter	3(5)	17(31)	17(31)	12(22)	6(11)	55(100)
Environment	3(11)	8(29)	8(29)	5(18)	4(14)	28(100)
Graduation	2(6)	12(38)	12(38)	6(19)	0(0)	32(100)
Total	54(8)	205(32)	209(33)	108(17)	63(10)	639(100)

Of the total related areas based on national curriculum, 209(33%) cases were applied to social relationship area, 205(32%) cases to communication area, 108(17%) cases to artistic experience area, and 63(10%) cases to nature inquiry area, and 54 (8%) cases to physical and health areas. Figure 3 shows the proportional distribution of five identified areas of web-based international exchange activities based on the national curriculum.

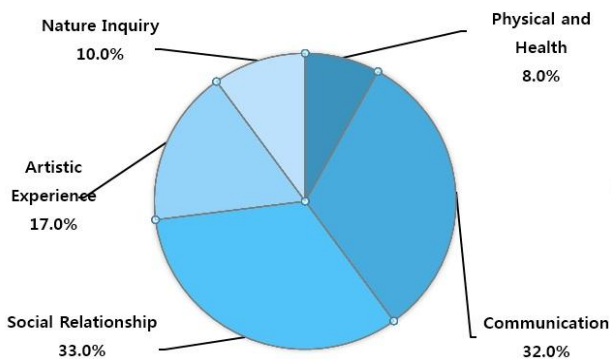


Fig 3. Proportional Distribution of Areas of Web-based International Exchange Activities

Among the related areas, social relationship area and communication areas were the most common areas because many parts of the web-based international exchange learning activities were composed of cooperative and interactional activities such as introducing each other, exchanging conversation to find out the problems, and collaborating with foreign friends to solve the problems on the process and

results of the activities. For example, in the case of art or music activities corresponding to the artistic experience of the national curriculum, they were supposed to be categorized as the artistic experience. However, in this web-based international exchange learning activities, art or music activities were categorized into communication area and social relationship area because participants in this study were involved in video making activities to post on Facebook or writing letters to show their artwork or musical performance to the foreign friends.

4.2 The Implemented Areas of Web-based International Exchange Activities into the National Curriculum

It was analyzed how the results of applying web-based international exchange learning activities were implemented into the national curriculum. The implemented areas were numbered from 1 to 5. The health and physical part was marked with number 1, the communication part with number 2, the social relationship part with number 3, the artistic experience part with number 4, and the nature inquiry part with number 5. The results of implemented areas of web-based international exchange learning activities implemented into the national curriculum were analyzed according to the actual order in which the learning activities were made. Table 2 shows the implemented areas of web-based international exchange activities into the national curriculum.

Table 2. Implemented Areas of Web-based International Exchange Activities in to the National Curriculum

Subject	Implemented Areas of Web-based International Exchange Activities										Total(%)
	1+3+4	1+2+3	1+2+3+4	1+2+3+5	2+3	2+3+5	3+4	2+3+4	2+3+4+5	1+2+3+4+5	
Kindergarten	1	0	0	0	11	0	2	5	0	0	19(100)
Spring	0	0	1	1	4	1	0	4	0	0	11(100)
I and Family	0	1	0	1	7	1	1	5	0	0	16(100)
Our Town	0	2	1	0	6	3	0	3	1	0	16(100)
Health and Safety	0	3	5	2	0	0	0	0	0	0	10(100)
Summer	0	0	1	4	3	6	0	2	3	0	19(100)
Vehicle	0	3	1	0	1	4	0	5	1	0	15(100)
Our Country	0	0	6	0	7	2	0	9	1	0	25(100)
Autumn	0	1	1	0	0	3	0	2	0	0	7(100)



World	0	1	4	1	7	0	0	8	2	1	24(100)
Living Tools	0	0	1	0	0	3	0	0	4	3	11(100)
Winter	0	0	0	2	4	1	0	5	4	1	17(100)
Environment	0	0	2	1	1	1	0	1	2	0	8(100)
Graduation	0	1	1	0	5	0	0	5	0	0	12(100)
Total	1	12	24	12	56	25	3	54	1	5	210(100)
	(0.4)	(6)	(11)	(6)	(27)	(12)	(1)	(26)	(0.4)	(2)	

According to the data presented in Table 2, the most dominantly implemented areas of national curriculum for the web-based international exchange learning activities were the integration of communication area and social relationship area (2+3), which were made 56 times (27%). This form of web-based international exchange learning activities occurred a lot when the participants engaged in a circle-time activity. During that activity, they told the results of their learning activities to their foreign friends, or they wrote letters explaining their learning activities. It can be interpreted that the largest proportion of these areas implemented into the national curriculum was due to the nature of web-based international exchange activities in which young children shared their daily activities with foreign friends and appreciated the performance of their foreign friends. The second most dominantly implemented areas of national curriculum for the web-based international exchange learning activities were the integration of communication area, social relationship area, and art experience area (2+3+4). This integrated activity type took place 54 times (26%) when the participants joined art or music learning activities, and then they exchanged their performance experience with their foreign friends. The third common form was the combination of communication area, social relationship area and nature inquiry area (2+3+5). This integrated activity type occurred 25 times (12%), typically when the life themes that they shared were associated with science or environment. The fourth common type was the integration of the physical and health area, communication area, social relationship area and art experience areas (1+2+3+4). This integrated activity type occurred 24 times (11%). The next type was the integration of the communication area, health and physical area, and social relationship area (1+2+3). This integrated activity type took place 12 times (6%). The integrated activity type of the communication area, health and physical area, social relationship area, art experience, and nature inquiry area (1+2+3+4+5) occurred 5 times (2%). The integrated activity type of the social relationship area and artistic experience area (3+4) took place 3 times (1%). The integrated activity type of the health and physical area, social relationship area, and art experience area (1+3+4) just happen one time (0.4%). The integrated activity type of the communication area, art experience area, social relationship area, and nature inquiry area (2+3+4+5) also occurred only onetime (0.4%). Since early childhood education aimed at integrated education, it can be said that web-based international exchange learning activities were effective for advancing the implementation of national curriculum for global education of young children. Figure 4 shows the proportional distribution of implemented areas of web-based international exchange activities based into the national curriculum.

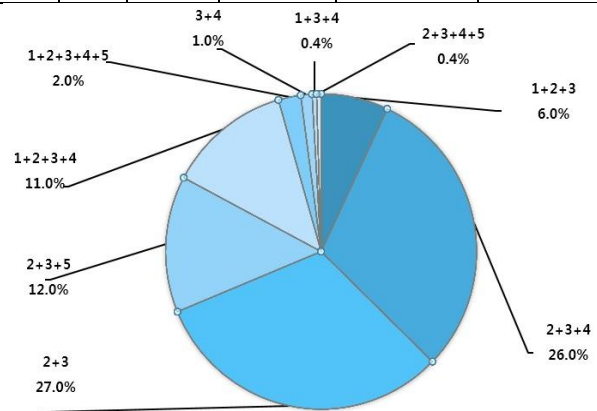


Fig 4. Proportional Distribution of Implemented Areas of Web-based International Exchange Activities

V. DISCUSSION AND CONCLUSIONS

The web-based international exchange project provided young children with the opportunity to meet foreign friends through the web. The intercultural exchange learning activities with the utilization of new technologies and social networks had an effect to help young children to experience mutual respect with foreign friends. According to the research results, the identified areas of web-based international exchange activities based on the national curriculum were five areas such as the health and physical area, social relationship area, communication area, art experience area and nature inquiry area. This finding is compatible to the earlier research results that web-based global international exchange programs could be suitable for early childhood education in order to promote intercultural understanding for the global education of young children.

This study revealed that the most dominantly implemented areas of national curriculum for the web-based international exchange learning activities were the integration of communication area and social relationship area. This integrated type was most significant because the characteristic of the web-based international exchange learning activities were mostly sharing the daily activities with the foreign friends and responding to what the foreign friends did for their daily learning activities. Through these learning activities, the participants could improve the intercultural understanding and learn how to develop mutual respect for different cultural aspects for global education. The next common activity type was the integration of the social relationship area, communication area, and art experience area. This type of integrated learning activities generally took place when the participants told their foreign friends about how they made art or music learning activities and what the outcomes were.



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This result were compatible to other research findings that web-based international exchange projects had positive effects on helping young children to develop cultural openness, to have interests both in their own culture and in different cultures, and to learn mutual respect. In addition, the findings suggested that the participants could develop their global awareness when they experienced intercultural learning activities through the web-based international exchange project.

The limitation of this study was that only a case in which a specific kindergarten applied the web-based international exchange project into the national curriculum was explored on a long-term basis. For the more comprehensive study, a comparative analysis should be conducted by comparing this kindergarten with different kindergartens which would implement only the national curriculum without the application of web-based international exchange learning activities. The same national curriculum should be the foundation for global education of young children, but it should be essential to discover in detail what would be the differences among the kindergartens according to how to implement each area of national curriculum. Not only the experience of young children and their teachers but also differences in instructional plans should all thoroughly be compared to find out what kind of learning and teaching strategies and approaches can narrow the differences.

There are also some suggestions for the future study. More cooperative research should be designed by establishing a solid and detailed research plan with more diverse educational organizations from different countries. Besides, further action studies should be conducted to support the professional development of preschool teachers for the web-based international exchange project for the global education of young children. What complications and limitations the teachers who participated in this study experienced should be explored, and proper pedagogical guidance should be given to them in order to overcome the difficulties and help them to become educational experts for global education of young children. In sum, the web-based international exchange project has broken the barriers of intercultural exchange experience through the integration of new technology and social networks. The implication of this study is that the web-based international exchange project has suggested the pedagogical significance of applying the annual educational plan of the national curriculum at the stage of early childhood.

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