A Study on Satisfaction of Teachers Taking Charge of Innovative Education District in Gyeonggi-do: Focusing on the Case of the P Area in Gyeonggi-do

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Abstract

Objectives This is a research and analysis on the perception of teachers in charge of the introduction and operation of the innovative education district in Gyeonggi-do Province P. The purpose is to redesign the innovative education district project in the P area based on the analysis.

Methods A survey was conducted on 108 teachers in charge of the innovative education district in Gyeonggi-do P, and a research method was used on the operation of the innovation education district.

Results First, the innovative education district, which started in 6 regions of Gyeonggi-do in 2011, has been extended to 16 provincial offices of education. Also, the innovative education district is set as the future education direction. Second, for teachers, the general matters of the innovative education district, teacher satisfaction, and the satisfaction level was 4.13, 4.22, and 4.02, which was a high average. On the other hand, it appears necessary to redesign the project by gathering feedback from multiple areas, such as teachers, parents, and village activists, since the village school utilizing local resources responded with a "3.80" and the awareness of world culture for multicultural understanding with a "3.85". Third, as a result of the average analysis of the innovative education district survey of teachers in area P, significant results according to their teaching career were clearly revealed. In particular, those with less than 10-15 years of teaching experience generally gave positive and high scores to the questionnaire responses. This seems to be the case since the majority of teachers with between 10 and 15 years of experience are head teachers or young teachers in their 40s, who are engaged in the education industry and possess a deep knowledge of the sector.

Conclusions This is the expansion of the innovative education district, and it should be operated as a project with the village community and parents, not as a teacher-centered project. Periodic teacher training is necessary to go together.

Keywords: innovative education, innovative education district, innovation education district status, teacher awareness

1, Introduction

1.1 Necessity and Purpose of Research

In order to normalize public education, Kim Sang-ghon, the former superintendent of education and the first superintendent in Gyeonggi-do chosen by popular vote, proposed three primary promises: innovative education, free school lunches, and student human rights legislation. Among the projects to keep the promises, the innovative education district project is aimed at generalizing Innovative schools (Kim, 2015). Today, the educational gap has become a serious issue. In the educational circumstance, it is necessary to come up with educational governance based on a variety of educational stakeholders' participation and cooperation in order to accept the requests of education innovation needs.

To meet these needs and requests, local governments and offices of education under their educational cooperation began to establish innovative education districts as a model of educational governance. Such educational cooperation districts tend to be expanded qualitatively and quantitatively. In other words, under the MOU between local

governments and offices of education, the innovative education district project is performed to implement innovation in local education and educational welfare not only in Gyeonggi-do but across the nation (Song, 2020).

The 'innovative education district' project began in 2011 in Gyeonggi-do, and now is operated in 16 out of 17 provincial offices of education in the nation (except for Jeju-do office of education). An Innovative education district is viewed as the educational innovation associated with local communities beyond conventional school innovation. The achievements of innovative education districts that began in Gyeonggi-do and Seoul are as follows: improvement in the educational power of local schools through inter-school cooperation, the possibility of citizen-participation-based democracy through private-public governance, activation of cooperation between local governments and offices of education, activation of the education cost support of local governments, and expansion of school curriculums in local communities. Innovative education districts are significant in that they provide a framework for collaboration between local governments and schools, and as a result, both the public and private sectors in a linked region work to achieve educational innovation. One of the 100 government initiatives launched by the Moon Jae-in administration to carry out its strategy at the national level was the Innovative Education District. As a result, in order to promote educational autonomy and school innovation, the ministry of education actively implemented administrative and financial assistance. It is time and necessary to assess the five-year performance of the education policy that the previous administration implemented given the context of the innovative education district's operation over the past ten years, given that it is operated in 16 provincial offices of education and was included in 100 government projects.

For this reason, this study was conducted. The reason why the P area in Gyeonggi-do was selected is that the P area is situated in Gyeonggi-do whose office of education first began to operate an innovative education district, and has non-high school equalization (HSE). The non-HSE means the high zeal of teachers and parents for the education of their children and students. In the P area, an innovative education district has been operating for four years. Therefore, at this point in time, it is important to determine if the operation of the innovative education district is stable. Furthermore, this study is aimed at looking into teachers' awareness of the innovative education district that has been operatingover the last four years in the area and solving problems.

1.2 Research Content, Scope, and Limitations

This study looked into teachers' awareness after the introduction and operation of an innovative education district in the P area of Gyeonggi-do. The contents of this research are as follows:

First, what is the current status of innovative education district in the nation? Second, how is teachers' awareness of innovative education district in the P area of Gyeonggi-do? The P area of Gyeonggi-do employed 108 teachers leading innovative education districts in 108 elementary, middle, and high schools for the purpose of conducting a questionnaire survey. This study is a quantitative research on teachers' awareness of the innovative education district being operated in the P area of Gyeonggi-do, and has the following limitations:

First, since this questionnaire-based quantitative study focused on teachers taking charge of innovative education district in the P area of Gyeonggi-do, it is hard to generalize the study results to all teachers in Gyeonggi-do. Second, the awareness of teachers taking charge of the operation of innovative education districts in the P area of Gyeonggi-do is personal and subjective. Therefore, it is difficult to generalize the results of detailed and subjective experiences. Third, since the contents of the collected data were based on previous studies, there was no consideration of the factors whose measurement was impossible, and there were limitations to overall and comprehensive analysis.

2. Theoretical Background

2.1 Innovative Education District

2.1.1 Background

Innovative education district is the education policy kicked off with the spread of the innovative school movement to seek changes in competitive and undemocratic educational circumstances, and is aimed at establishing the educational ecosystem of local communities. It makes a point that collaboration among local communities should be used to address educational challenges as they are not those of schools, teachers, and students but rather local communities. In other words, local education and school issues need to be resolved through the association between communities and education. Innovative education district as a sort of policy tries to design and pursue futuristic education in a broad view. Various projects and programs are funded and run in innovative education districts as a means of overcoming the shortcomings of local educational authorities and general authorities for local education in order to advance local education. The project of an innovative education district includes all the administrative and financial support for the

change and development of local education and for the recovery of local communities(Kim,K.S,2017). Given the point that innovative education district has been generated and developed in villages and communities, it reflects the characteristics of these villages and communities. However, this does not imply that innovative educational districts are only found in local communities because 16 out of 17 provincial offices of education operate on a national level (except for the Jeju-do office of education).

Understanding the movement and project of innovative education districts is a way of understanding and finding local education, and furthermore is the work of seeking and understanding the direction of the development of Korean education.

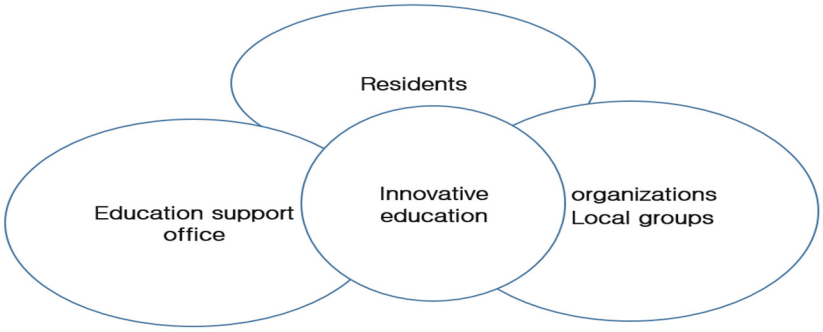

Figure 1. Innovative Education District Cooperation

2.1.2 Concept and Objectives

Innovative education district is defined as the region designated under the agreement between the Gyeonggi-do office of education and local government in order to establish the local education community for active communication and cooperation between schools and communities (Ministry of Education, 2020).

Conventional educational innovation arises internally, whereas the educational innovation of the Gyeonggi-do office of education is a broad sense of innovation combined with an external organization. In particular,

it is the result as the expansion of educational innovation through cooperation between education authorities, general authorities, and local communities. In the case of the Gyeonggi-do innovative education district, educational innovation is carried out by local communities and schools together in the big frame of autonomy, cooperation, and future education. The education in innovative education holds dear individuals as democratic citizens for their growth, beyond their simple learning, and focuses on public concern and communities, rather than individuality and competition. In addition, the objectives of an innovative education districts are to emphasize educational governance through local communities, local authorities, and schools, to establish an educational ecosystem, to reflect the characteristics local communities pursue, and thereby to design future education and expand public concern.

2.1.3 Deployment

Gyeonggi-do's innovative education district was first proposed in 2009 and was implemented in full swing in 2011. Since then, it has been expanded to other regions. The alternative school movement to find a solution to overcome the limitations of public school, and the innovative school movement led by teachers in schools in order for educational innovation arose, but they had limitations. Due to the situation, an innovative educational policy was developed (Chae, 2018). The innovative school movement emerged from school innovation driven by teachers.

The teacher-based educational innovation, however, faced limitations. To solve the problem, an innovative education district associated with local governments and local communities was proposed as a policy. The cooperation between local governments, schools, and local community members became a new education model, which was developed into an innovative education district.

2.2 Current Status of the P Area in Gyeonggi-do and Innovative Education District

2.2.1 Current Status of the P Area in Gyeonggi-do and Deployment

The P area of Gyeonggi-do is a small and medium- sized city with a population of 590,000 people. As large companies like Samsung and LG and US army bases came in, the city has been developed and expanded. Its population has been on the constant rise(Kim, 2019). The steady increase in the population led to the rise in the number of students as well

as the number of adults. With the increase in the number of employees working at good companies, it is inevitable for them to have relatively more interest in children's learning and career. In Educational Statistics Service (2021), the numbers of young children, elementary students, and secondary students by administrative district were analyzed. As for the number of students in the P area, of the total 70,802 students, kindergarteners numbered 7,241, elementary students 16,101, middle school students 7,613, and high school students 14,670. As for schools, of the total 108 schools, elementary schools numbered 62, middle schools 25, and high schools 21. In 2019, the local government authority of the P area signed the innovative education district agreement with the Gyeonggi-do office of education. Since then, it has been operating the innovative education district project. As of 2022, the innovative education district has been in operation for 4 years in the P area.

2.2.2 The P Area of Gyeonggi-do Innovative Education District

The P area of Gyeonggi-do as selected as innovative education district in 2019, which has been in operation for 4 years. In 2022, the local vision of the innovative education district is "happy education to improve the energy of life across various fields". Its chapter was determined in three ways: First, implementation of educational autonomy through local educational governance; Second, enhancement of innovative education ecosystem through educational cooperation between schools and villages; Third, establishment of the future education system reflects local characteristics. The innovative education district project being performed in three ways has various categories. The education autonomy includes a guarantee of basic and fundamental education, distinguished school, enhancement of teacher competency, democratic citizens living together, and pond of arts. The education cooperation includes Our city Pyeongtaek, swimming education, village learning place, Gyeonggi Dream School, and governance. This future education includes creative education in high school, activation of foreign language education, career education, and future education (Gyeonggi Provincial Office of Education,2022).

2.3 Analysis of Related Works and Implications

The previous studies related to the operation of innovative education districts were analyzed. Their implications are summarized as follows: Sohng Gyeong-soon (2021) conducted a questionnaire survey with 32 persons working in educational administration, general administration, and civic groups, who participated in Shiheung-si innovative education district project directly or indirectly. The survey participants laid stress on facilitative leadership and cooperation process. The success factors of the innovative education district were cooperation and project progress sharing, mutual acceptance, and parent-student participation. Heoh Yoon-seok (2021) researched elementary school students' awareness of the operation of the Gyeonggi-do innovative education district and made three suggestions for the development of the innovative education district: First, the enhancement of public education communities; Second, the continuous support of the budget; Third, the establishment of a systematic operation system. Seong Byeong-chang et al. (2019) conducted a questionnaire survey on school members' awareness of the Big-happiness Educational District in Saha-gu, Busan. These school members replied that the operation of the innovative education district was helpful for school education, and requested an additional project for continuous development. Additional suggestions were establishment based on local communities, enhancement of cooperation between local governments and offices of education, and transfer to local communities for the reduction in school administrative affairs. Sohn Moon-sook (2019) conducted qualitative research on the innovative education district of Michuhol-gu, Incheon. Based on the case of operation, she proposed development tasks. The first was residents' spontaneity as a result of collaboration between the private, public, and academic sectors. The second was the sharing of vision and goals. The third was the establishment of government. Chae Hee-tae (2018) focused on the explanation and conflicts of Seoul's innovative education district. He analyzed different positions of local authorities and offices of education, and of citizens, and tried to find a development plan. After related works were reviewed, this study drew the following implications: First, these previous studies focused on related members' awareness of the operation development of innovative education districts. However, there is a lack of research on the most fundamental operation process of innovative education district projects and detailed curricula. Therefore, it is necessary to analyze the process and operation of the innovative education district, and thecurrent status of schools for the project in a detailed and comprehensive way. Second, most studies on Gyeonggi-do innovative education district were conducted in a large frame. In short, they focused on policies and plans macroscopically. Microscopic research in the unit of school is also needed. Therefore, it is necessary to research actively the school curriculums and classes of innovative education districts in a balanced way. It is expected that the results of this study contribute to operating an innovative education district project in a balanced direction.

3. Research Method

3.1 Study Subjects

The researcher conducted an online questionnaire survey with teachers in charge of innovative education districts in 108 schools: 64 elementary schools, 25 middle schools, and 21 high schools, in order to determine teachers' awareness of innovative education districts in the P area of Gyeonggi-do after their introduction and operation. The questionnaire survey had been carried out from April 12 to April 19, 2021. As shown in the survey responses, 83 out of 108 subjects responded to the questionnaire, and the background variables of these respondents included school level, gender, Homeroom/non-homeroom teacher, school location, school type, years of teaching experience, and position.

Table 1. Questionnaire Responses

School level	No. of survey subjects (persons)	No. of respondents (persons)	Percentage of subjects (%)	Percentage of respondents (%)
Elementary school	64	48	59.3	44.4
Middle school	25	17	22.2	15.7
High school	21	13	18.5	12
Total	108	83	100	72.2
Type	Details			
Gender	Male: 35, Female: 48			
Homeroom/non-homeroom teacher	Homeroom teacher: 50, Non-homeroom teacher: 33			
School location	North: 21, South: 39, West: 23			
School type	Innovative school: 24, Innovation empathy school: 50, General school: 9			
Years of teaching experience	Less than 10 years: 13, Between 10 and 15 years: 13, Between 15 and 20 years: 20, Over 20 years: 37			
Years of service in the P area	Less than 5 years: 20, Less than 10 years: 17, Over 10 years: 46			
Position	Head teacher: 68, Teacher: 15			

The analysis methods applied to this study are as follows: First, based on references, related works are analyzed. Second, the contents described on the websites of the Ministry of Education and Education Support Office are analyzed. Third, the questionnaire of teachers in charge of innovative education districts is analyzed. In addition, the study procedure and flowchart are summarized below.

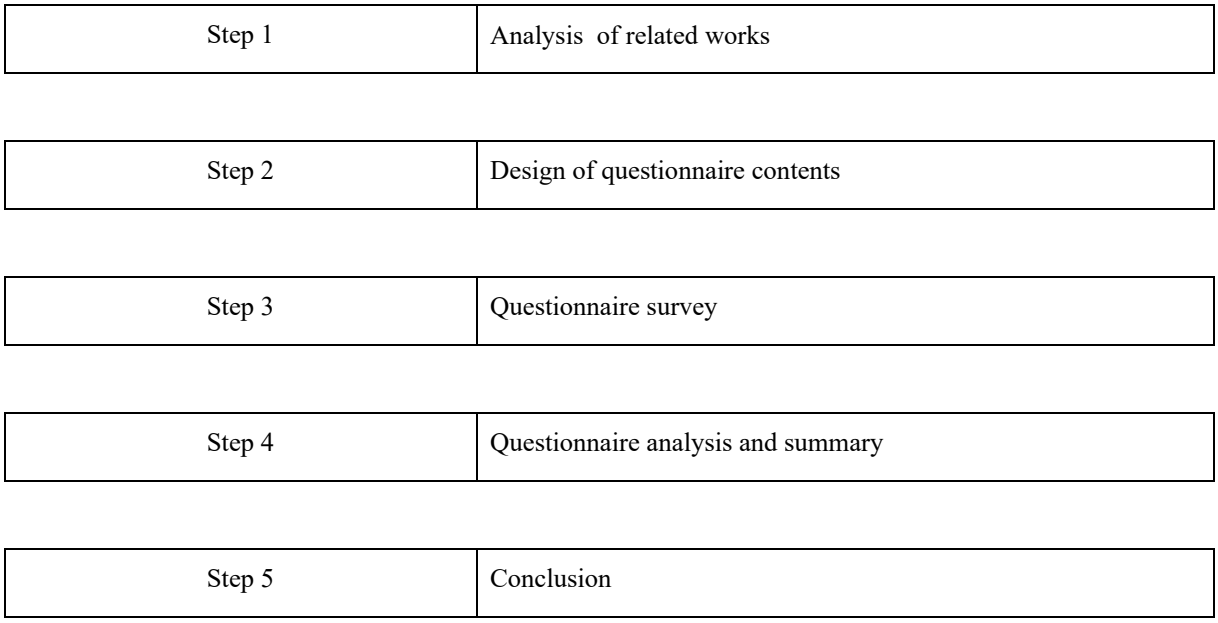

Figure 2. Research Procedure

3.2 Questionnaire

In this study, the subjects of the questionnaire survey were 108 teachers (elementary, middle, and high schools) taking charge of the innovative education district in the P area of Gyeonggi-do, and the questionnaire consisted of a total of 16 items: 8 in the category of general matters of innovative education district; 5 in the category of teachers' satisfaction; 3 in the category of district project and others. The variables of the respondents were school level, gender, Homeroom/non-homeroom teacher, school location, school type, years of teaching experience, years of service in the P area, and position. The answers to the online questionnaire consisted of answers to background questions, 5-point Likert scale-based answers, and open-ended answers. The 5-point Likert scale was made of 'Strongly disagree', 'Disagree', 'Neutral', 'Agree', and 'Strongly agree', or 'Very poor', 'Poor', 'Average', 'Good', and 'Very good'.

Table 2. Contents of the Questionnaire

No.	Category	No. of items	Remark
1	·General matters of innovative education district	8	5-point scale
2	·Teacher satisfaction with innovative education district	5	5-point scale
3	·Operation of innovative education district project	2	5-point scale and short answer
4	Others	1	Open-ended answer
Total		16	

3.3 Analysis Method

In order to determine the awareness of the introduction and operation of innovative education district in the P area of Gyeonggi-do, this researcher carried out an online questionnaire survey with 108 teachers in charge of innovative education district work. Based on the questionnaire results, frequency and ratio of items were analyzed, and descriptive statistics were conducted. As a statistic program, 'SPSS20.0' was used. To find a difference in the mean between groups, a t-test was conducted in the case of two comparative groups, and ANOVA in the case of more than three comparative groups as independent samples. If a t-test is applied to more than three groups in order to compare the mean, type I error increases. For this reason, in such a case, it is required to conduct ANOVA. When groups showed significant results after analysis, posthoc test was conducted to find if there are significant differences between groups.

4. Research Results

4.1 Current Status

Since the innovative education district began in 2011 in Gyeonggi-do, it has been expanded to Seoul and major cities in the country. Now, 16 out of 17 provincial offices of education (except for Jeju-do) operate innovative education districts. Of 227 local authorities in the nation, 167 were designated so that 73.6% are in operation. The main characteristics of 16 cities and provinces are presented as follows:

First, innovative education district has diverse names. Major cities and provinces mostly use the name this innovative education district, and name it Seoul's innovative education district, Big-happiness education district, Future education district, and so on. Nevertheless, their fundamental philosophy, operation guidelines, and visions are highly similar, and their programs have similarities. In a broad view, they are almost similar, and details showing their local characteristics are different.

Second, in terms of the operation and designation of innovative education districts, 16 out of provincial offices of education (except for Jeju-do) perform and operate their innovative education district. After an agreement is concluded, related local authorities operate the innovative education district in cooperation with education support offices. In fact, not all of the 16 basic local governments operate their innovative education district. The current status of the innovative education districts operated by provincial offices of education in the country is shown below.

Table 3. Innovative Education Districts Operated by Provincial Offices of Education in the Country

No.	Province	Name	Year of introduction	Designation info.		
				Total	No. of designated regions	Rate (%)
1	Seoul	Seoul innovative education district	2013	25	25	100
2	Busan	Big-happiness education district	2018	16	7	43.8
3	Daegu	Daegu future education district	2020	8	6	75
4	Incheon	Educational innovation district	2015	10	7	70
5	Gwangju	Village education community	2016	5	5	100
6	Sejong	Happy education district	2015	1	1	100
7	Daejeon	Innovation-open innovative education district	2018	5	5	100
8	Ulsan	Sharing education district	2020	5	2	40
9	Gyeonggi	Innovative education district	2011	31	30	96.8
10	Gangwon	Happy education district	2016	18	12	66.7
11	Chungbuk	Happy education district	2017	11	11	100
12	Chungnam	Happy education district	2017	5	1	93.3
13	Jeonbuk	Innovative education special district	2015	14	6	42.9
14	Jeonnam	Jeonnam innovative education district	2013	22	22	100
15	Gyeongbuk	Gyeongbuk future education district	2020	23	5	21.7
16	Gyeongnam	Happy education district	2017	18	9	50
		Total		227	167	73.6

Source: Reconfiguration of the content offered by Ministry of Education (2020)[12]

4.2 Questionnaire Analysis

With regard to the mean in the questionnaire, <general matters of innovative education district>, <teachers' satisfaction with innovative education district>, and <a degree of the help of the innovative education district project in school> had 4.13, 4.22, and 4.02, respectively. Teachers gave the lowest mean score, or 3.93, to the answer 'students and parents increased their sense of community', which is the key to the innovative education district project.

4.2.1 General Matters of Innovative Education District

Table 4. Items of the General Matters about Innovative Education District

Items	Mean	Standard deviation
1) Our school operates the curriculum designed in consideration of school and local characteristics.	4.19	0.740
2) Our school plans education activities in communication and cooperation with local communities.	4.12	0.787
3) Innovative education district project helped students understand local communities well.	4.06	0.705
4) Innovative education district project helped to increase pride and habitability of local communities.	4.10	0.726
5) innovative education district project helped parents and students increase their sense of community.	3.93	0.745
6) Innovative education district project helped to communicate more between schools and local communities.	4.13	0.712
7) Innovative education district project helped to increase educational activities using education resources in local communities.	4.27	0.700
8) Innovative education district project helped to develop local communities.	4.22	0.733
Subtotal	4.13	

Regarding general matters of innovative education district, teachers in charge of the innovative education district in the P area of Gyeonggi-do were overall positive about their satisfaction and understanding of purpose, communication, education activity, and local development. The answer 'innovative education district project helped to increase the education activity using education resources in communities' scored the highest, or '4.27', followed by the answer 'innovative education district project helped to develop local communities ('4.22'). The answer about the establishment of a local education ecosystem and local communities, which is a key to an innovative education district, scored the lowest, or '3.93'. The reliability (Chonbach' α) was '.901'.

4.2.2 Teachers' Satisfaction with Innovative Education Districst

Teachers taking charge of innovative education districts were highly satisfied overall. In particular, the answer 'I think that innovative education district is meaningful in terms of education' scored the highest, or '4.39', followed by the answer 'innovative education district project helped to increase satisfaction with local communities' ('4.20'). Given that the reflection of teachers' opinions scored '4.25', teachers' growth '4.16', and teachers' satisfaction with school '4.08', the innovative education district project positively affected teacher and school satisfaction. The reliability of teacher satisfaction (Chonbach' α) was '.904'.

Table 5. Items of the Teachers' Satisfaction with Innovative Education District

Items	Mean	Standard deviation
9) I think that Innovative education district project is meaningful in terms of education.	4.39	0.824
10) Innovative education district project helped me grow as a teacher.	4.16	0.904
11) Innovative education district project reflects well teachers' opinions.	4.25	0.746
12) Innovative education district project helped to increase teachers' satisfaction with school.	4.08	0.829
13) Innovative education district project helped to increase satisfaction with local communities.	4.20	0.808
Subtotal	4.22	

4.2.3 Satisfaction with Innovative Education District Project

The mean for a degree of assistance from an innovative education district program at school was 4.02. As such, it was highly positive. In the 14 programs of the innovative education district project, the program 'our distinguished school' contributing to making a school culture scored the highest, or '4.64', followed by 'improvement in basic and fundamental education' ('4.29'). In the innovative district project, 'village school' scored the lowest on average, or '3.80'. The reliability of the satisfaction with innovative education district (Chonbach' α) was .946.

Table 6. Programs of the Innovative Education District Project

Program	Mean	Standard deviation
1) Improvement in basic and fundamental education	4.29	0.891
2) Our distinguished school	4.64	0.655
3) Creative education of high school (special education)	4.00	0.975
4) Creative education of high school (high school credit system)	3.89	0.963
5) Activation of foreign language education	4.04	1.098
6) Democratic citizens living together (personality performance)	3.94	0.967
7) Democratic citizens living together (Debate competition)	3.82	0.952
8) Democratic citizens living together (Understanding of global culture)	3.86	0.989
9) Democratic citizens living together (Peaceful school)	3.95	0.961
10) Democratic citizens living together (School clubs)	4.16	0.819
11) Project in our village	4.05	0.949
12) Swimming education experience	3.86	1.170
13) Education of career and higher school	3.96	0.890
14) Village school	3.80	0.960
Subtotal	4.02	

4.3 Mean Analysis (t, F-test)

4.3.1 General Matters of Innovative Education District

1) 'Our school operates the curriculum redesigned in consideration of school and local characteristics'

The mean of the item "Our school operates the curriculum redesigned in consideration of school and local characteristics" was significantly different depending on whether a respondent was homeroom teacher (t=2.969, p<.01). Homeroom teachers (4.38) positively replied more than non-homeroom teachers (3.91).

Table 7. Response to Curriculum Operation

Type		N	Mean	Standard deviation	t/F
Homeroom/non-homeroom teacher	Homeroom teacher	50	4.38	0.635	2.969**
	Non-homeroom teacher	33	3.91	0.805	

2) 'Innovative education district project helped students and parents increase their sense of community'

The mean of the item "Innovative education district project helped students and parents increase their sense of community" was significantly different depending on years of teaching experience (F=3.023, p<.05). Respondents with less than 10 years of teaching experience (3.69) were higher aware of students and parents' sense of community than those with 10-15 years of teaching experience (4.46).

Table 8. Response to Sense of Community

Type		N	Mean	Standard deviation	t/F
Years of teaching experience	Less than 10 years	13	3.69	0.751	3.023*
	10-15 years	13	4.46	0.660	(a<b)
	15-20 years	20	3.85	0.875	
	Over 20 years	37	3.86	0.631	

4.3.2 Teachers' Satisfaction with Innovative Education District

1)'Innovative education district project reflects well teachers' opinions'

The mean of the item "Innovative education district project reflects well teachers' opinions" was significantly different depending on school location (local position) (F=7.360, p<.01). Teachers whose schools are located in south and (4.41), and north (4.48) positively responded to the reflection of teachers' opinions in the project more than those whose schools are situated in the south (3.78). The mean of the item was also significantly different depending on years of teaching experience (F=3.913, p<.05). Teachers with 10-15 years of teaching experience (4.62) positively responded to the reflection of teachers' opinions on the project more than those with less than 10 years of teaching experience (3.69).The mean of the item was also significantly different depending on years of service in the P area (F=4.322, p<.05). Teachers with more than 10 years of service in the area (4.41) positively responded to the reflection of teachers' opinions in the project more than those with less than 5 years of service in the area (3.85).

Table 9. Response to the Reflection of Teachers' Opinions in the Innovative Education District Project

Type		N	Mean	Standard deviation	t/F
School location (local position)	North	21	4.48	0.602	7.360**
	South	39	4.41	0.637	
	West	23	3.78	0.850	
Years of teaching experience	Less than 10 years	13	3.69	0.630	3.913*
	10-15 years	13	4.62	0.650	(a<b)
	15-20 years	20	4.30	0.657	
	Over 20 years	37	4.30	0.777	
Years of service in the P area	1-5 years	20	3.85	0.988	4.322*
	5-10 years	17	4.29	0.686	(a<c)
	Over 10 years	46	4.41	0.580	

2) 'Innovative education district project helped to increase the satisfaction with local communities'

The mean of the item "Innovative education district project helped to increase the satisfaction with local communities" was significantly different depending on years of teaching experience (F=3.170, p<.05).

Teachers with 10-15 years of teaching experience (4.69) were more satisfied with the innovative education district project than those with less than 10 years(3.85).

Table 10. Response to the Item 'Innovative Education District Project Helped to Increase the Satisfaction with Local Communities'

Type		N	Mean	Standard deviation	t/F
Years of teaching experience	Less than 10 years	13	3.85	0.801	3.170*
	10-15 years	13	4.69	0.480	(a<b)
	15-20 years	20	4.35	0.745	
	Over 20 years	37	4.08	0.862	

4.3.3 Satisfaction with Innovative Education District Project

In the questionnaire analysis, the items 'activation of foreign language' and 'our village program' were significant in terms of the satisfaction with innovative education district project.

1) Activation of foreign language education

How much the innovative education district project helps to activate foreign language education was significantly different depending on the school level (F=4.407, p<.01). Elementary school teachers (4.35) perceived that the innovative education district project helped to activate foreign language education, more than teachers of general high school (3.31). In addition, there was a significant difference depending on years of teaching experience (F=3.111, p<.05). Teachers with 10-15 years of teaching experience (4.69) perceived that the innovative education district project helped to activate foreign language education, more than those with less than 10 years (3.46).

Table 11. Activation of Foreign Language Education

Type		N	Mean	Standard deviation	t/F
school level	Elementary school	48	4.35	0.758	4.407**
	Middle school	17	3.88	1.269	(a<c)
	General high school	18	3.36	1.548	
Years of teaching experience	Less than 10 years	13	3.46	1.050	3.111*
	10-15 years	13	4.69	0.630	(a<b)
	15-20 years	20	4.15	1.182	
	Over 20 years	37	3.95	1.104	

2) Our village program

The amount that the innovative education district initiative contributes to 'our village program' varies substantially by school level (F=6.170, p.01). Elementary school teachers (4.35) perceived that the innovative education district project helped out 'our village program', more than teachers of general high school(3.29). There was a significant difference depending on whether to be a homeroom teacher (t=2.857, p<.01). Homeroom teachers (4.28) perceived that the innovative education district project helped out 'our village program', more than non-homeroom teachers (3.70). A significant difference was also made depending on this school type (F=3.713, p<.01). Teachers of innovation empathy school (4.22) perceived that the innovative education district project helped out 'our village program', more than teachers of general school (3.33).

Table 12. Our Village Program

Type		N	Mean	Standard deviation	t/F
School level	Elementary school	48	4.35	0.729	6.170
	Middle school	17	3.94	1.088	
	General high school	18	3.29	1.121	
Homeroom/non-ho	Homeroom teacher	50	4.28	0.809	2.857**
meroom teacher	Non-homeroom teacher	33	3.70	1.045	
School type	Innovative school	24	3.96	1.083	3.713*
	Innovation empathy school	50	4.22	0.737	
	General school	9	3.33	1.323	

5. Conclusion

In this study, teachers' awareness of the introduction and operation of an innovative education district in the P area of Gyeonggi-do innovative education district was analyzed. The conclusions drawn in the study are as follows:

First, innovative education district has been expanded across the nation. In 2011, an innovative education district first began as six local authorities were designated in Gyeonggi-do for the project. Now, it has been expanded to 16 out of 17 provincial offices of education except for the Jeju-do office of education. Of 227 local authorities in the country, 167 local authorities, or 73.6% perform the innovative education district project.

Second, with regard to teachers' awareness of the innovative education district in the P area of Gyeonggi-do, they were highly satisfied with the innovative education district project in terms of its help for local communities, school classes, teaching satisfaction, and so on. The teachers, however, were less aware of multi-culture and association with local communities. It will be necessary to improve the project in line with village programs and to reflect the opinions of villages and parents.

Third, according to the mean analysis of teachers' awareness of innovative education districts in the P area, there was a significant difference depending on years of teaching experience. Teachers with 10-15 years of teaching experience actively responded to the questionnaire and gave high points to questionnaire items. Since most of the teachers with 10-15 years of teaching experience were head teachers or in their 40s or younger, they seemed to actively participate in the innovative education project and to highly understand the project. It implies that the innovative education district project can only be run by some, not all, of the teachers in charge of the district, or by teachers who are interested in the initiative

Finally, the purpose and vision of the innovative education district should be with teachers, students, parents, and residents, but there is a lack of consensus. In order to continuously develop this, regular education for parents, students, and teachers should be provided.

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