An Analysis of Gifted Teachers' Interest in the Standards of National Gifted Education Program

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Abstract: The purpose of this study is to analyze the differences in interest by background variables using CBAM models as a study on the analysis of gifted teachers' interest in national gifted program criteria. For this purpose, a survey was conducted on 200 teachers participating in gifted education in the K area and the results were utilized. The conclusions of this study are as follows. First, the overall interest in the national gifted program was high, and gifted teachers were positive about the overall impact and outcome of the national gifted program on students in gifted educational activities. Therefore, it will be necessary to utilize and support specific teacher training and gifted education so that the standards of the national gifted program can be applied to the educational site properly in the educational field. Second, national gifted curriculum programs customized for each student level should be developed and distributed based on understanding of the national gifted program standards. Training support and provision of materials should be prioritized, along with suggesting specific writing methods, so that teachers in charge of gifted education can write systematic programs rather than piecemeal education programs. Third, the effective and successful use and settlement of the national gifted education program standards will require continuous support for the dissemination of data and training of gifted education programs to gifted teachers through the development of regular gifted teaching.

Keywords: National Gifted Education Program Standards, CBAM, Gifted Education, Gifted Education Teachers, Interests

1. Introduction

Despite the quantitative expansion of gifted education, questions about the need to strengthen the quality aspects such as how to operate each institution, differences in programs, and teacher capabilities have been continuously raised. In the process of establishing the 3rd General Plan for Gifted Education, a plan was proposed to prepare detailed evaluation criteria such as step-by-step teaching methods, education instructors, and textbook utilization to verify the educational effectiveness of each component. This is to provide gifted students with differentiated education programs beyond those offered in regular schools for self-realization and social development. The regular curriculum focuses on knowledge, function, and attitude, but gifted education focuses on the development of creative problem solving, self-directed learning attitude, and leadership. However, the programs currently used in the field of gifted education tend to focus on certain areas depending on the major areas of teachers in charge of gifted education, and there are many overlapping and omitted contents.

As a result, standards were established to provide common guidelines at the national level for developing and operating gifted education programs, considering the need for gifted education policies and characteristics and conditions at the gifted education site. Since the national gifted program

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standards can be successfully used in the field and lead to innovation in gifted education, continuous research on the national gifted program standards can be conducted through on-site training, and case studies are emphasized. Therefore, this study will be used as a basic research material to analyze the interest of teachers in charge of gifted education in terms of national gifted program standards and to investigate ways to raise interest and practice according to the results.

2. Theoretical Background

2.1 Definition of Giftedness

The definitions and concepts of giftedness are used differently by gifted scholars or by specific times, and from various perspectives. The definition of giftedness is used differently without obtaining a logically agreed uniform definition. As such, the definitions of giftedness use different approaches, so it is necessary to examine them accurately. Generally classified definitions of giftedness can be divided into six categories: psychometric definitions, characteristic-based definitions, social needs-based definitions, education-based definitions, special talents definitions, and multi-dimensional definitions[1].

2.2 National Gifted Education Program: Science in Elementary and Middle School

Programs as a teaching plan used in science gifted education should be able to provide opportunities for gifted students to express and utilize their various abilities, such as familiarity with abstraction, excellent concentration and persistence, curiosity about new things, quick understanding, and transition[2]. "National Gifted Education Program Standards: Elementary and Middle School Science" provided science gifted students with basic qualifications and abilities as scientists by presenting scientific concepts and practical exploration, as well as nature, integration concepts, convergence capabilities, and career factors[3].

2.3 National Gifted Education Program: Elementary and Middle School Mathematics

The National Gifted Education Program : The Elementary and Middle School Mathematics Composition System is a guide to the development and composition of programs aimed at fostering creative mathematic talent based on regular curriculum. To this end, the relevant major system was selected to correspond to the core concepts of mathematics and curriculum, and these contents were divided into I-level (basic), II-level (development), and III-level (expansion) and presented step-by-step. Using this, each gifted educational institution developing a gifted mathematics education program could decide the ratio of education activities to be included in the subject and subject-specific gifted programs, considering the level of students in the institution.

2.4 CBAM Model

The CBAM can investigate changes and innovations in education, and close diagnostics can be used for stages of interest, level of use, and Innovation configuration, and the results of which can be used to systematically improve the curriculum[4].

CBAM is recognized as a progressive interest-based process and is a model that embraces new changes and innovations, and describes the characteristics and patterns of interest that are identified in implementing changes in curriculum innovation and school improvements. The system considers the role of people in the initiation and implementation of new changes and innovations, and presupposes

that educational sites can be improved when people accept, implement, and change. In particular, the improvement and change of schools depends on the interest and understanding of teachers at school sites, so it is difficult to make changes in schools without proper understanding and interest in them[5].

The level of interest can be divided into seven levels, each, information, personal, operational, consequential, cooperative, and reinforcement, and as individuals encounter new innovations and changes, they think that the seven levels of interest strongly emerge[6].

In addition, individual interests develop in the process of change and innovation, which they have developed from zero to six levels. Factors to consider in determining innovation and change in the curriculum can be described as administrative and financial support for education as a whole, on-site education programs, teachers, learners, and school curricula, but above all, the quality of education in school field classrooms depends on teachers' abilities and interests[7].

These CBAMs have been identified and utilized for a long time through research on school curriculum innovation and change[8].

With these characteristics, CBAM is appropriate to describe the process of introducing and implementing the latest education methods or technologies at new educational sites, and most of the research on the curriculum in Korea[9].

CBAM understands the acceptors in the process of change and innovation and can be used to provide appropriate support through these courses including the stages of interest (SoC), innovation configuration map (IC map), and levels of execution (LoU). At the implementation level, it is a tool that helps to manipulate the levels at which new changes and innovations are implemented, and a change-type map is to present steps 0 to 6 of interest in change and innovation in the form of profiles[10].

These three types of diagnostic tools can be described as interest-based acceptance models.

3. Research Methods

3.1 Subject to Study

In this study, 223 male and female gifted education teachers who participated in gifted education activities in K-area in 2019 were selected for the study to find out the interest of gifted teachers in the national gifted program. The general background of gifted teachers who responded to the survey is shown in [Table 1].

[Table 1] Distribution of Research

Separate	Separate	Headcount	%
By gender	Man.	142.	71.
	A woman.	58.	29.
	Total.	200.	100.
School class	Elementary School Teacher.	150.	75.
	Middle school teachers.	50.	25.
	Total.	200.	100.
By establishment	State, public.	170.	85.
	Private.	30.	15.
	Total.	200.	100.
All Support	The fifth class.	30.	15.
	6-10 classes.	54.	27.
	11-15 classes.	50.	25.

	More than 16 classes.	66.	33.
	Total.	200.	100.
Production A career	0 - four years.	70.	35.
	5 - nine years.	40.	20.
	10 - 14 years.	20.	10.
	15 - 19 years.	50.	25.
	For more than 20 years.	20.	10.
	Total.	200.	100.
Final education	Academy.	114.	57.
	More than a master.	86.	43.
	Total.	200.	100.
The job	Principles.	150.	75.
	A vocational teacher.	50.	25.
	Total.	200.	100.
The field	Science.	152.	76.
	Math.	48.	24.
	Total.	200.	100.

3.2 Research Tools

3.2.1 Inspection Tools

The questionnaire used in this study consisted of a background variable for a typical teacher identifying interest in national gifted program standards. The questionnaire measuring gifted teachers' interest was translated into the Stage of Concern Questionnaire (SoCQ) developed by Hall & Hord (2006) and adapted and supplemented to the context of the national gifted program criteria to serve the purpose of the study. The Interest Measurement Questionnaire consists of 35 questions that can indicate the degree of interest in the national gifted program standards. The questionnaire consists of seven steps from level 0 to level 6, and each step consists of questions as shown in [Table 2].

[Table 2] Each step-by-step Statement

Phase of interest		Number of the sentence
Perceptual interest	One step (perception)	312,2223,330.
The self	Intelligence (information interest)	6,14,15,235.
The self	Two steps (personal interest)	713,17,233.
Challenges	Three steps (operational interest)	4,816,234.
Impact (impact)	These are the results of the results	11119,232.
Impact (impact)	Interactive interest	5,10,18,229.
Impact (impact)	Sixty-six steps	2,920,231.

This researcher used quantitative research methods and secured the validity of the questionnaire through a review by two curriculum professors, three scholars, and five gifted education experts.

3.2.2 Data Processing Method

Data processing was analyzed using the IBM SPSS 23 program. First, to analyze the overall interest

of teachers in charge of gifted education in terms of the national gifted education program standards, a descriptive statistical analysis of relative strength by stages was conducted on gifted teachers. Second, we analyzed whether there are different levels of interest for each individual depending on the general background of teachers in charge of gifted students (by gender, school grade, founder, overall academic supply, teaching career, final education, and position). The questionnaire was analyzed as % (percentile score) using the SoCQ quick scoring device [10] after the scores of the questions were averaged together.

4. Research Results

In this section, the results were presented to analyze teachers' interest in the developed criteria and to find ways to increase them and how to practice them.

4.1 An Analysis of Interest in National Gifted Education Program Standards for Gifted Education Programs

The results on gender interests are shown in [Table 3].

[Table 3] Attention by Gender (Percentile score)

Separate		By gender						
		One step (Perceptual interest)	First (Informational interest)	Two steps (personal interest)	Three steps (Operational interest)	Three steps (Results)	Five steps (Collaborative interest)	Sixth (Enhanced interest)
Man	Average	23.40	22.38	22.66	22.98	22.52	22.35	23.42
	Conversion value	99	80	80	85	43	55	77
A woman	Average	24.32	23.37	23.98	24.12	23.58	23.60	24.55
	Conversion value	99	84	83	88	48	64	84

Looking at the relative strength of the level of interest according to the gender of gifted teachers, all of them showed high perceptual interest. For men, the order of results are perceptual, operational, personal, informative, cooperative, reinforcing, and consequential, followed by perceptual, operational, reinforcing, informative, personal, cooperative, and consequential. Overall, perceptual interest was high because of the burden of the national gifted program as a task. Nevertheless, the high level of operational and informational interest shows that gifted teachers want to know more about how the actual national gifted education program standards should be operated at the educational site, and know that they are closely related to gifted education.

Second, the level of interest by school level is shown in [Table 4].

[Table 4] Interest by School Level (Percentile score)

Separate		Schools						
		One step (Perceptual interest)	First (Informational interest)	Two steps (personal interest)	Three steps (Operational interest)	Three steps (Results)	Five steps (Collaborative interest)	Sixth (Enhanced interest)
Elementar	Average	23.47	22.53	22.88	23.41	22.48	22.38	23.7

y School. Teacher	Conversion value	99	84	80	85	38	55	81
Middle school. Teachers	Average	24.26	23	23.54	23.02	23.9	23.74	23.92
	Conversion value	99	84	83	85	48	64	81

Looking at the average relative intensity of gifted teachers by level of interest according to school grades, both elementary and middle schools showed high perceptual interest. In the case of teachers participating in elementary school gifted education, perceptual interest, operational interest, informational interest, reinforcement interest, personal interest, cooperative interest, and consequential interest were shown.

Third, the interest level of each school's founding member is as shown in [Table 5].

[Table 5] Interest by Founder (Percentile score)

Separate		By establishment						
		One step (Perceptual interest)	First (Informational interest)	Two steps (personal interest)	Three steps (Operational interest)	Three steps (Results)	Five steps (Collaborative interest)	Sixth (Enhanced interest)
Public and public	Average	23.55	22.57	22.98	23.39	22.59	22.6	23.73
	Conversion value	99	84	80	85	43	59	81
Private	Average	24.33	23.23	23.4	22.8	24.2	23.4	23.8
	Conversion value	99	84	80	83	48	59	81

Looking at the average of relative intensity of each stage of interest according to each establishment, it was found that both national, public, and private schools had high perceptual interest. In the case of national and public, perceptual interest, operational interest, informational interest, reinforcement interest, personal interest, cooperative interest, and consequential interest were followed by perceptual interest, operational interest, informational interest, reinforcement interest, personal interest, cooperative interest.

Fourth, the results of interest in the total number of classes are shown in [Table 6].

[Table 6] Interest by Class Size (Percentile score)

Separate		Full class						
		One step (Perceptual interest)	First (Informational interest)	Two steps (personal interest)	Three steps (Operational interest)	Three steps (Results)	Five steps (Collaborative interest)	Sixth (Enhanced interest)
The fifth class	Average	23.9	21.7	22.6	23.45	21.8	23.09	24.09
	Conversion value	99	80	80	85	38	59	81
6-10 classes	Average	22.93	22.26	22.33	22.4	22.8	21.46	22.93
	Conversion value	99	80	78	83	43	52	77

11-15 classes	Average	23.82	22.72	22.94	23.08	23.04	22.7	23.46
	Conversion value	99	84	80	85	43	55	77
More than 16 classes	Average	23.67	22.79	23.20	23.50	22.84	22.84	23.94
	Conversion value	99	84	80	88	43	59	81

Looking at the mean of relative strength in stages of interest by overall grade, classes 5 or below were followed by perceptual, operational, reinforcement, personal, information, collaborative, and consequential, and 6-10 classes were presented in order of perceptual, operational, personal, reinforcement, collaborative, 11-15 Classes were presented in the order of perceptual, operational, informational, personal, reinforcement, cooperative, and consequential, with classes 16 or higher in the order of perceptual, operational, informational, reinforcement, personal, collaborative, and consequential.

Fifth, the degree of interest for each teaching career is shown in [Table 7].

[Table 7] Interest by Teaching Experience (Percentile Score)

Separate		By orthographic force						
		One step (Perceptual interest)	First (Informational interest)	Two steps (personal interest)	Three steps (Operational interest)	Three steps (Results)	Five steps (Collaborative interest)	Sixth (Enhanced interest)
For four years	Average	22.91	22.33	22.5	22.58	22.83	21.58	22.91
	Conversion value	99	80	80	85	43	55	77
5-9 years	Average	24	23.31	22.12	23.18	21.87	21.75	23.62
	Conversion value	99	84	78	85	38	55	81
In 10-14	Average	23.9	22.87	23.21	23.63	22.96	22.72	23.87
	Conversion value	99	84	80	88	43	59	81
In 15-19	Average	23.61	22.77	23.19	22.31	23	22.87	23.77
	Conversion value	99	84	80	83	43	59	81
For more than 20 years	Average	23.91	21.91	22.75	23.33	23	23.5	24.16
	Conversion value	99	80	80	85	43	64	81

Looking at the mean of relative strength in stages of interest by teaching career, 0-4 years followed the perceptual, operational, personal, informational, reinforcement, collaborative, and consequential, and 5-9 years followed the perceptual, operational, informative, personal, collaborative, and consequential. Perceptual interest, operational interest, reinforcement interest, personal interest, informational interest, cooperative interest, and consequential interest were shown.

Sixth, the degree of interest by academic background is shown in [Table 8].

[Table 8] Depth by academic background (Percentile score)

Separate		By academic force						
		One step (Perceptual interest)	First (Informational interest)	Two steps (personal interest)	Three steps (Operational interest)	Three steps (Results)	Five steps (Collaborative interest)	Sixth (Enhanced interest)
Academy	Average	23.16	22.27	22.54	22.79	22.43	22.10	23.14
	Conversion value	99	80	80	85	38	55	77
Seok Sai- sang	Average	24.33	23.20	23.70	24	23.36	23.53	24.55
	Conversion value	99	84	83	88	43	64	84

The average of relative strength in stages of interest by academic background was shown in the order of perceptual interest, operational interest, informational interest, personal interest, reinforcement interest, and cooperative interest for master's or higher.

Seventh, the degree of interest by position is shown in [Table 9].

[Table 9] Depth by Position (Percentile score)

Separate		By title						
		One step (Perceptual interest)	First (Informational interest)	Two steps (personal interest)	Three steps (Operational interest)	Three steps (Results)	Five steps (Collaborative interest)	Sixth (Enhanced interest)
Principles	Average	23.42	22.35	22.85	22.85	22.7	22.66	23.35
	Conversion value	99	80	80	85	43	59	81
A vocational teacher	Average	24.4	23.64	23.62	24.7	23.24	22.88	24.96
	Conversion value	99	88	83	90	43	59	84

Looking at the mean of relative strength in stages of interest by position, lay teachers showed perceptual interest, operational interest, reinforcement, personal interest, informational interest, collaborative interest, vocational interest, information, operational interest, personal interest, and cooperative interest. Eighth, the level of interest in each field is shown in [Table 10].

[Table 10] Depth by Discipline (Percentile score)

Separate		By field						
		One step (Perceptual interest)	First (Informational interest)	Two steps (personal interest)	Three steps (Operational interest)	Three steps (Results)	Five steps (Collaborative interest)	Sixth (Enhanced interest)
Science	Average	23.62	22.56	22.92	23.09	22.81	22.69	23.53
	Conversion value	99	84	80	85	43	59	81
Math	Average	23.83	23.06	23.45	24.11	22.90	22.81	24.55

	Conversion value	99	84	80	88	43	59	84
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Looking at the mean of relative intensity by stages of interest by discipline, science showed perceptual interest, operational interest, informational interest, reinforcement, personal interest, cooperative interest, consequential interest, mathematics in the order of perceptual interest, operational interest, information interest, personal interest, and cooperative interest.

Ninth, the overall interest is shown in [Table 11].

[Table 11] Overall Depth (Percentile score)

Separate.		All.						
		One step. (Perceptual interest)	First. (Informational interest)	Two steps. (personal interest)	Three steps. (Operational interest)	Three steps. (Results)	Five steps. (Collaborative interest)	Sixth. (Enhanced interest)
All.	Average.	23.67	22.675	23.045	23.315	22.835	22.72	23.755
	Conversion value.	99	84	80	85	43	59	81

The overall mean of the relative strength of the step-by-step of interest according to the discipline, for interest, perceptual, operational, informational, reinforcement, personal, cooperative, and consequential is shown below [Fig. 1].

[Fig. 1] Interest Profile

4.2 Differences in Interest in National Gifted Education Programs by Background Variable

In the analysis of differences in interest, the independent sample t-test by gender, school grade, founder, and teaching experience showed significant differences in cooperative interest by academic background, strengthening interest by academic background, and operating interest by position. In addition, one-way Anova was conducted to examine whether there are differences in interest levels according to variables for analysis of differences in class or class size, depending on the number of teaching experiences in groups. As a result of one-way random analysis, no significant differences were found depending on teaching experience, number of classes, or class size. Details are as follows.

[Table 12] Gender t-test Results

Separate	Group	N	M	SD	t	p
One step	Man.	142	23.4014	4.89182	-1.240	.216

(Perceptual interest)	A woman.	58	24.3276	4.53984		
First (Informational interest)	Man.	142	22.3873	4.21219	-1.495	.137
	A woman.	58	23.3793	4.37227		
Two steps (personal interest)	Man.	142	22.6620	4.62937	-1.807	.072
	A woman.	58	23.9828	4.83587		
Three steps (Operational interest)	Man.	142	22.9859	4.75944	-1.508	.133
	A woman.	58	24.1207	5.00203		
Three steps (Results)	Man.	142	22.5282	4.92165	-1.373	.171
	A woman.	58	23.5862	5.00188		
Five steps (Collaborative interest)	Man.	142	22.3592	4.96990	-1.635	.104
	A woman.	58	23.6034	4.66017		
Sixth (Enhanced interest)	Man.	142	22.3592	4.96990	-1.506	.134
	A woman.	58	23.6034	4.66017		

*p<.05, **p<.01, ***p<.001

[Table 13] T-test Results by School Level

Separate	Group	N	M	SD	t	p
One step (Perceptual interest)	Participation teachers in elementary school	150	23.4733	4.80170	-1.004	.317
	Participation teachers in middle school	50	24.2600	4.79289		
First (Informational interest)	Participation teachers in elementary school	150	22.5667	4.25751	-.620	.536
	Participation teachers in middle school	50	23.0000	4.34248		
Two steps (personal interest)	Participation teachers in elementary school	150	22.8800	4.70744	-.856	.393
	Participation teachers in middle school	50	23.5400	4.75613		
Three steps (Operational interest)	Participation teachers in elementary school	150	23.4133	4.84136	.496	.620
	Participation teachers in middle school	50	23.0200	4.89685		
Three steps (Results)	Participation teachers in elementary school	150	22.4800	4.95851	-1.764	.079
	Participation teachers in middle school.	50	23.9000	4.84136		
Five steps. (Collaborative)	Participation teachers in elementary school.	150	22.3800	4.89853	-1.707	.089

interest)	Participation teachers in middle school.	50	23.7400	4.82261		
Sixth. (Enhanced interest)	Participation teachers in elementary school.	150	23.7000	4.86702	-.280	.780
	Participation teachers in middle school.	50	23.9200	4.61957		

*p<.05, **p<.01, ***p<.001

[Table 14] T-test Results by Establishment Subject

Separate	Group	N	M	SD	t	p
One step (Perceptual interest)	Public public relations	170	23.5529	4.80139	-.820	.413
	Private	30	24.3333	4.81616		
First (Informational interest)	Public public relations	170	22.5765	4.22833	-.776	.439
	Private	30	23.2333	4.54619		
Two steps (personal interest)	Public public relations	170	22.9824	4.71994	-.446	.656
	Private	30	23.4000	4.76047		
Three steps (Operational interest)	Public public relations	170	23.3941	4.81036	.549	.584
	Private	30	22.8667	5.10398		
Three steps (Results)	Public public relations	170	22.5941	4.93568	-1.643	.102
	Private	30	24.2000	4.92985		
Five steps (Collaborative interest)	Public public relations	170	22.6000	4.90188	-.823	.411
	Private	30	23.4000	4.93824		
Sixth (Enhanced interest)	Public public relations	170	23.7353	4.83031	-.138	.890
	Private	30	23.8667	4.67372		

*p<.05, **p<.01, ***p<.001

[Table 15] T-test Results by Degree

Separate	Group	N	M	SD	t	p
One step (Perceptual interest)	Academy	114	23.1667	4.78921	-1.716	.088
	The master	86	24.3372	4.75917		
First (Informational interest)	Academy	114	22.2719	4.20132	-1.542	.125
	The master	86	23.2093	4.33078		
Two steps (personal interest)	Academy	114	22.5439	4.66988	-1.739	.084
	The master	86	23.7093	4.72258		
Three steps	Academy	114	22.7982	4.81917	-1.745	.083

(Operational interest)	The master	86	24.0000	4.82396		
Three steps (Results)	Academy	114	22.4386	4.89181	-1.305	.194
	The master	86	23.3605	5.01976		
Five steps (Collaborative interest)	Academy	114	22.1053	4.90686	-2.058	.041*
	The master	86	23.5349	4.80612		
Sixth (Enhanced interest)	Academy	114	23.1491	4.82844	.45222	.039*
	The master	86	24.5581	4.65922		

*p<.05, **p<.01, ***p<.001

[Table 16] t-test Results by Position

Separate	Group	N	M	SD	t	p
One step (Perceptual interest)	Principles	150	23.4267	4.96342	-1.244	.215
	A vocational teacher	50	24.4000	4.23301		
First (Informational interest)	Principles	150	22.3533	4.39514	-1.856	.065
	A vocational teacher	50	23.6400	3.75668		
Two steps (personal interest)	Principles	150	22.8533	4.80127	-.995	.321
	A vocational teacher	50	23.6200	4.44876		
Three steps (Operational interest)	Principles	150	22.8533	4.90362	-2.360	.019*
	A vocational teacher	50	24.7000	4.43203		
Three steps (Results)	Principles	150	22.7000	5.01106	-.666	.506
	A vocational teacher	50	23.2400	4.81308		
Five steps (Collaborative interest)	Principles	150	22.6667	5.01764	-.266	.791
	A vocational teacher	50	22.8800	4.58765		
Sixth (Enhanced interest)	Principles	150	23.3533	4.83296	-2.068	.040
	A vocational teacher	50	24.9600	4.51736		

*p<.05, **p<.01, ***p<.001

[Table 17] T-test results by Field

Separate	Group	N	M	SD	t	p
One step (Perceptual interest)	Science	157	23.6242	4.79505	-.257	.797
	Math	43	23.8372	4.86939		
First (Informational interest)	Science	157	22.5669	4.35342	-.683	.495
	Math	43	23.0698	3.98447		

Two steps (personal interest)	Science	157	22.9299	4.82530	-.658	.511
	Math	43	23.4651	4.32242		
Three steps (Operational interest)	Science	157	23.0955	4.77008	-1.225	.222
	Math	43	24.1163	5.09065		
Three steps (Results)	Science	157	22.8153	5.07990	-.107	.915
	Math	43	22.9070	4.52934		
Five steps (Collaborative interest)	Science	157	22.6943	5.08853	-.141	.888
	Math	43	22.8140	4.21028		
Sixth (Enhanced interest)	Science	157	23.5350	4.69250	-1.241	.216
	Math	43	24.5581	5.13300		

*p<.05, **p<.01, ***p<.001

[Table 18] Results of One-way Random Analysis on the Interest Level of Each Class

Area	Source	SS	DF	MS	F-Value	Pr>F
	Class numbers					
One step (Perceptual interest)	Group-liver	9.901	3	3.300	.141	.935
	Group-mine	4574.319	196	23.338		
	Total	4584.220	199			
First (Informational interest)	Group-liver	14.131	3	4.710	.255	.858
	Group-mine	3617.744	196	18.458		
	Total	3631.875	199			
Two steps (personal interest)	Group-liver	13.348	3	4.449	.198	.898
	Group-mine	4413.247	196	22.517		
	Total	4426.595	199			
Three steps (Operational interest)	Group-liver	20.156	3	6.719	.283	.838
	Group-mine	4652.999	196	23.740		
	Total	4673.155	199			
Three steps (Results)	Group-liver	13.510	3	4.503	.181	.909
	Group-mine	4874.045	196	24.868		
	Total	4887.555	199			
Five steps (Collaborative interest)	Group-liver	27.089	3	9.030	.372	.773
	Group-mine	4757.231	196	24.272		
	Total	4784.320	199			
Sixth (Enhanced interest)	Group-liver	20.128	3	6.709	.289	.834
	Group-mine	4556.867	196	23.249		
	Total	4576.995	199			

*p<.05, **p<.01, ***p<.001

[Table 19] Results of One-way Random Analysis on the Degree of Interest by Teaching Experience

Area	Source	SS	DF	MS	F-Value	Pr>F
	By orthographic force					
One step (Perceptual interest)	Group-liver	11.565	4	2.891	.123	.974
	Group-mine	4572.655	195	23.450		
	Total	4584.220	199			
First (Informational interest)	Group-liver	12.961	4	3.240	.175	.951
	Group-mine	3618.914	195	18.559		
	Total	3631.875	199			
Two steps (personal interest)	Group-liver	22.001	4	5.500	.244	.913
	Group-mine	4404.594	195	22.588		
	Total	4426.595	199			
Three steps (Operational interest)	Group-liver	10.096	4	2.524	.106	.980
	Group-mine	4663.059	195	23.913		
	Total	4673.155	199			
Three steps (Results)	Group-liver	27.169	4	6.792	.273	.895
	Group-mine	4860.386	195	24.925		
	Total	4887.555	199			
Five steps (Collaborative interest)	Group-liver	40.874	4	10.218	.420	.794
	Group-mine	4743.446	195	24.325		
	Total	4784.320	199			
Sixth (Enhanced interest)	Group-liver	11.320	4	2.830	.121	.975
	Group-mine	4565.675	195	23.414		
	Total	4576.995	199			

*p<.05, **p<.01, ***p<.001

Independent sample t-test and one-way analysis of variance (one-way Anova) were conducted to see if there were any differences in interest levels depending on the variables. As a result, collaborative interest by academic background ($p<.05$) to $F=-2.058$, $p=.041$ was shown to be significant, and strengthened interest by academic background ($p<.05$) to $F=.45222$, $p=.039$ and operational interest by position ($p<.05$). It was found to be significant in $p=0.05$ as $F=-2.3602$ and $p=.019$. This means that it is statistically significant based on the significance level of 0.05.

5. Conclusions and Suggestions

The study looked at the interest of teachers participating in gifted education in the national gifted program standards. The results, using the Steps of Interest questionnaire, were shown as awareness, operational, informational, reinforcement, personal, collaborative, and consequential. Although it recognizes the importance of the national gifted program standards, it shows that it is burdensome to apply the national gifted program standards in the actual gifted curriculum to conduct classes and practice them. This means that the direction and principles of the gifted curriculum are understood and agreed, but it is difficult for gifted teachers to practice in the field considering the unfamiliarity and

understanding of the program standards, and lack of curriculum and activity. In this study, educational support and prescriptions should be provided to meet the interests of gifted teachers in order to revitalize the national gifted program standards. Based on this, the suggestion is as follows.

First, overall, the interest in the national gifted program standard was high, and gifted teachers were positive about the impact and results of the national gifted program standard on students in gifted educational activities. Therefore, it will be necessary to utilize and support specific teacher training and gifted education so that the standards of the national gifted program can be applied to the educational site properly.

Second, a customized national gifted curriculum program should be developed and distributed based on an understanding of the level of interest in the national gifted program standards. Training support and data provision should be prioritized, along with detailed preparation methods, so that teachers in charge of gifted education can write systematic programs rather than composition of fragmented education programs.

Third, for the effective and successful use and settlement of the national gifted program standards, support for the dissemination of materials and training of gifted education programs should be provided to gifted teachers through regular development of gifted teaching.

Such educational efforts will create an atmosphere for active participation in educational sites, a system of educational activities in schools, share educational contents, exchange various teaching activities using new national gifted program standards, and share know-how.

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