

Professional Competencies for the Education of Gifted Students¹

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Abstract

The aim of this study is to determine teachers' views on their professional competencies for the education of gifted students. Qualitative case study design was used in the study. The participants of the study consisted of thirty-seven teachers working at different educational levels who had experience working with gifted students. The data collection tool was a semi-structured interview form developed by the researcher. Content analysis was used to analyze the research data. The research findings consisted of five themes: professional development, communication with gifted students, teaching and learning process, relationships with family, school and society, personal characteristics and professional values. In the research, the most important competencies that teachers should have in the field of professional development were determined as; providing continuous professional development, following innovations in the field, being competent in using technology, knowing students cognitively, emotionally and socially. Additional professional development competencies were determined as teachers developing children's research skills, giving additional tasks focused on talent, activating curiosity, having student-centered communication skills, teachers having field knowledge, making student-centered enrichments in the education program, having professional knowledge, being able to organize student-centered activities, using different methods and techniques in teaching processes. As a result of the research findings, it was suggested that the number of trainings and seminars that can provide continuous professional development of teachers and support them in the field of education should be increased, and the publications that teachers can follow innovations and developments should be increased and made accessible.

Keywords: Gifted, education of the gifted, teacher, teacher professional competencies.

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Introduction

Intelligence and ability are concepts that have been debated and the focus of researchers for many years. The concept of the gifted has been the subject of research for more than a hundred years, various theories have been proposed and different models have been developed (Donovan & Cross, 2002). When the literature on gifted children is examined, it is seen that concepts such as “gifted”, and “giftedness” are generally used (Renzulli, 2016; Renzulli & Reis, 2021; Sternberg & Ambrose, 2021). In the Regulation on Special Education Services in Türkiye (2018), these individuals show an extraordinary level of success or potential for success in the areas of creativity, leadership, and arts compared to their peers.

It was determined that gifted children can organize their thoughts quickly, exhibit spontaneous reading and writing skills in preschool period because they have a strong memory, and can concentrate on higher-level mental skills required for abstract thinking, and logical and complex problems (Sak, 2020; Webb et al., 2016). More and more research in this field is being added every year and the interest in the education of gifted students is increasing. With the increase in this awareness in Türkiye, educational policies have been developed to train teachers and open educational institutions for the education of gifted students. In the education of gifted students, the professional competencies of teachers who will take part in the education of gifted students are as important as the institutions and teaching environments provided for their abilities.

The teaching profession is a field of study that requires knowledge and skills that require special expertise in the social, cultural, economic, scientific, and technological aspects of education (Şişman & Acat, 2003) Teaching is an important profession that requires using professional knowledge and skills effectively in all educational fields or environments (Albarra Shidiq et al., 2022). Teachers have important influences at many points such as the curriculum, the creation of the learning environment, achieving learning goals, and supporting individual students (Gross, 2003). In the education of gifted students, teachers are very important in recognizing students with potential and developing the talent areas of these students, as teachers' professional competencies, knowledge, skills and attitudes, and teacher training on how to treat students are very important (Khalil & Accariya, 2016; Smeets et al., 2023). For this reason, ideal teacher competencies for the education of gifted students have been among the focus topics in recent years and have been the subject of many studies (Ford & Trotman, 2001; Chan, 2011; Cheung & Hui, 2011; Gómez-Arizaga et al., 2016; Litster & Roberts, 2011; Nelson & Prindle, 1992; Saadu et al., 2024). Gifted students need the support and guidance of the teacher to achieve their full potential (Coleman & Cross, 2021; De Boer et al., 2013). The inadequacy of teachers' knowledge, competence, and attitudes towards gifted students is an important problem for gifted students and the welfare of society (VanTassel-Baska & Stambaugh, 2005; Organization for Economic Cooperation and Development, [OECD], 2010). Because students whose educational needs are not met fail, lose their talents, and may even have to drop out of school (Hansen & Toso, 2007; Rone et al., 2023). For this reason, teachers should know the cognitive, physical, social, linguistic, emotional, and cultural development of the students in their class, their learning styles, their strengths and weaknesses, and their interests and needs (Şahin, 2015)

Regarding the characteristics that teachers who work with gifted students should have, researches have highlighted characteristics such as a sense of humor and enthusiastic teaching, interest and respect for the student, flexibility in teaching, being creative, encouraging discussion and thought, and having sufficient field knowledge (Mills, 2003; Wendel & Heiser, 1989). Teachers' pedagogical content knowledge, willingness to teach, and self-regulation skills directly affect the quality of teaching and students' course achievement (Blömeke et al., 2016; Kunter et al., 2013). The professional competencies that teachers should have are positive attitudes towards their profession (Liakopoulou, 2011; Tanang & Abu, 2014), as well as the adequacy of their professional knowledge and skills in terms of both quantity and quality to perform their profession effectively (Bertschy et al., 2013; Call, 2018; Darling-Hammond, 2016; Goodwin, 2021). In addition, teachers' personal qualities also affect students' academic and social development (Danisman et al., 2019; Lopez-Martinvd., 2023). In the literature, teachers' personal qualities are listed as being loving, being open to innovations, being fair, thinking empathically, managing change, communicating effectively with students, valuing students, inspiring students, having moral values, having humor, adapting to

teamwork, being tolerant, and creativity (Arnon & Reichel, 2007; İlğan, 2021; Khalilzadeh & Khodi, 2021; Paine et al., 2016).

Teachers have an important role in identifying gifted students, developing their potential, and supporting them in line with their abilities (Piske et al., 2017; Shabani & Atanasoska, 2021). In the studies conducted, it has been determined that teachers working with gifted students i) develop different strategies for acquiring knowledge and learning, ii) focus on students' learning goals, iii) design learning environments suitable for learning goals, iv) support students in in-school and out-of-school environments in line with their abilities and goals (Akar, 2021; Hong et al., 2011). Gifted students, on the other hand, drew attention to teachers' personality traits such as being knowledgeable, understanding, fair, disciplined, experienced, and using the language correctly (Erişti, 2012).

Aim of Study

With the increasing awareness of individual differences and gifted students and the increase in educational identification instruments, gifted students can be identified at an early stage. Gifted students receive education in the same classrooms as their peers at different levels of education and different grade levels. In this context, every teacher is likely to encounter gifted students in their professional lives. In order to meet the academic and social needs of gifted students, teachers need to have some professional competencies to make student-centered instructional regulations in the classroom, teaching processes, and learning environments. Teachers who do not have professional competencies for the education of gifted students or who partially have these competencies may be inadequate to meet the academic and social needs of gifted students, and cannot provide the academic knowledge and success that students need with the effect of the innovations brought by technology, and cannot support the development of students in line with their abilities. Along with all the students in the class, the teacher should guide the student with special talent potential and his/her family, support and guide the student and family in supporting the development of the student. In this context, determining professional competencies for the education of gifted students can contribute to the professional development of teachers, as well as the preparation of more qualified learning processes for gifted students and the development of their abilities. Teachers are key to recognizing students with special talents and supporting them in line with their talents. Because teachers who have positive attitudes toward students with special talents and professional qualifications can contribute to the development of students' talents and their real potential. Similarly, each student who demonstrates their potential is likely to contribute as a very important human resource for the development of the country. In this respect, determining teachers' competencies for the education of students with special talents is very important for the development of the education of students with special talents and for revealing students' potential. This study aimed to determine the professional competencies of teachers working with gifted students in the context of teacher views.

Method

Research Model

In this research, in which the professional competencies of teachers were examined in the context of teachers' opinions, the case study design, which is one of the qualitative research methods, was used. Qualitative researches are studies that follow qualitative processes by using qualitative data collection techniques such as unstructured or structured interview methods and document analysis to reveal phenomena and events in their natural environment realistically and comprehensively (Yıldırım & Şimşek, 2021). The case study is a research design in which the researcher analyzes a situation, program, event, action, process, or individual in depth. In this design, the researcher collects detailed information (Stake, 1995; Yin, 2009).

Participants

In the study, criterion sampling, one of the purposeful sampling methods, was used to determine the study group. Criterion sampling is the study of all situations that meet a predetermined set of criteria (Yıldırım and Şimşek, 2021). The participants of the study consisted of thirty-seven teachers who were reached by criterion sampling method and experienced in the education of gifted students, working in

primary, secondary, high schools, and SACs in the central district of Düzce province in the 2023-2024 academic year. Demographic information of the teachers participating in the study is given in Table 1.

Table 1.
Demographic Characteristics of Participant Teachers

Code	Gender	Educational Background	Institution	Participation in PDA for the Education of Gifted Students	Seniority	Seniority in Gifted Student Education
T1	Female	Bachelor's Degree	Primary School	Yes	13	4
T2	Male	Bachelor's Degree	Middle School	No	12	2
T3	Female	Bachelor's Degree	Primary School	Yes	16	6
T4	Male	Bachelor's Degree	SAC	Yes	23	7
T5	Female	Undergraduate Degree	Primary School	Yes	17	15
T6	Female	Undergraduate Degree	SAC	Yes	22	1
T7	Male	Bachelor's Degree	Middle School	No	12	1
T8	Female	Undergraduate Degree	Middle School	No	14	4
T9	Female	Undergraduate Degree	SAC	Yes	10	5
T10	Male	Undergraduate Degree	Primary School	Yes	18	7
T11	Male	Bachelor's Degree	Middle School	No	12	1
T12	Male	Bachelor's Degree	Middle School	No	12	1
T13	Female	Bachelor's Degree	Primary School	Yes	26	7
T14	Female	Undergraduate Degree	Primary School	Yes	25	20
T15	Female	Bachelor's Degree	Middle School	Yes	10	10
T16	Female	Bachelor's Degree	High school	Yes	9	0
T17	Female	Undergraduate Degree	SAC	Yes	9	7
T18	Male	Undergraduate Degree	Middle School	Yes	18	10
T19	Male	Undergraduate Degree	Middle School	Yes	18	10
T20	Male	Bachelor's Degree	Middle School	Yes	16	5
T21	Female	Bachelor's Degree	Middle School	No	5	1
T22	Male	Undergraduate Degree	SAC	Yes	25	3
T23	Female	Bachelor's Degree	Primary School	Yes	24	5
T24	Male	Bachelor's Degree	SAC	No	6	2
T25	Female	Bachelor's Degree	SAC	Yes	24	7
T26	Female	Undergraduate Degree	SAC	Yes	25	3
T27	Female	Bachelor's Degree	SAC	Yes	13	6
T28	Female	Bachelor's Degree	Primary School	No	9	8
T29	Female	Bachelor's Degree	High school	No	15	1
T30	Female	Bachelor's Degree	SAC	Yes	29	11
T31	Male	Bachelor's Degree	SAC	Yes	23	5
T32	Female	Bachelor's Degree	Primary School	Yes	26	2
T33	Male	Undergraduate Degree	Primary School	Yes	20	10
T34	Male	Bachelor's Degree	Primary School	No	36	10
T35	Male	Bachelor's Degree	Primary School	Yes	19	8
T36	Female	Undergraduate Degree	Middle School	Yes	11	4
T37	Female	Undergraduate Degree	SAC	No	16	7

PDA: Professional Development Activities

Data Collection Tool

The data collection tool used in the study was prepared by the researchers as a single open-ended question to obtain rich data from the participants. The prepared question was subjected to the review of two and one measurement experts on the education of gifted students. After the experts gave a positive opinion on the question, a pilot application was carried out for the clarity and content validity of the question. As a pilot study, 5 teachers were asked a single open-ended question. The answers were analyzed by the researchers. It was agreed that the single question met the criteria of usefulness, validity, and reliability in obtaining rich data. In the first part of the data collection tool, there were items related to demographic information such as gender, education level, institution of employment, participation in professional development activities for the education of gifted students, seniority in the profession, and seniority in the education of gifted students. In the second part, there was one semi-structured question about the characteristics that teachers should have. This question was; "In your opinion, what are the professional competencies that teachers working with gifted students should have? Please explain in detail." After obtaining the necessary legal permissions, the data were collected by sending the semi-structured interview form online to volunteer and willing teachers

working as teachers in the Central District of Düzce Province. The opinions were collected between November 30, 2023, and December 22, 2023. Teachers' opinions were collected through an open-ended questionnaire sent to teachers. Before the questionnaire was sent to the students, informed consent was requested for participation in the research. The form was terminated for participants who did not give consent for participation in the form. Ethics committee approval was obtained before the research, and research implementation permission was obtained after the ethics committee approval.

Data Analysis

In the study, content analysis and descriptive analysis were used to analyze teachers' opinions. Content analysis aims to reach concepts and themes that will express the research findings by analyzing the data (Mayring, 2015). Descriptive analysis, on the other hand, enables the analysis of data according to their frequencies according to the determined themes (Ekiz, 2020). In the research, content analysis was used in the analysis of data according to themes, and descriptive analysis was used in the frequency and interpretation of opinions. The opinions obtained in the research were transcribed and transferred to prose writing and a 7-page data file was created. The participants' responses were coded independently by the researchers, and themes and sub-themes were reached from the codes. The intercoder agreement was calculated as 95%. Then, the themes and sub-themes formed as a result of the coding were compared and the codes that could not be reconciled were re-evaluated. The compatibility of the themes and subthemes with the codings created by the researchers was subjected to peer review by two field experts and one measurement and evaluation expert. The reliability rate of coding agreement between expert opinions was 93% (Miles & Huberman, 2015). In line with the expert opinions, the sub-themes of three codes and the themes of two codes were changed and the themes and sub-themes were finalized. The findings were supported by giving direct quotations of the participants' views on the theme and sub-themes. Each teacher was given a code in direct quotations (Teacher 1, T1; Teacher 2, T2.....; Teacher 37, T37). Table 2 shows teacher opinions and a coding example based on these opinions.

Table 2.

An Example Of Coding Teachers' Opinions

Teacher's statement (in raw form)	Code(s) containing the statement
To be able to use the most effective teaching methods and techniques ⁽¹⁾ , to provide the required guidance ⁽²⁾ , use effective instruments to recognize the gifted student both cognitively ⁽³⁾ , and emotionally ⁽⁴⁾ , competence in the use of technology ⁽⁵⁾ , being able to improve oneself by following current developments in the area of gifted education ⁽⁶⁾ .	1. Using methods and techniques suitable 2. Guidance 3. Knowing the student with his/her cognitive characteristics 4. Knowing the student with his/her emotional characteristics 5. Competence in using technology 6. Providing continuous professional development

Validity and Reliability: Validity in qualitative research includes the credibility and transferability of data; Reliability is used to define criteria regarding the consistency and confirmability of data (Creswell, 2013; Merriam & Tisdell, 2016).

Credibility: In determining the purpose of the research, creating the data collection tool, collecting, analyzing, and interpreting the data, long-term study and interaction were achieved on the data, and the data was described and interpreted in detail (Stahl & King, 2020). In the study, participants were diversified to create different perspectives among the participants, and researchers and co-experts were diversified to increase reliability in the analysis of the data (Patton, 2014). In order to prevent errors arising from subjective assumptions in the data analysis process, the codes, sub-themes, and themes obtained were presented to four participants, and member checking was obtained from the participants regarding the accuracy of the data (Birt et al., 2016; Candela, 2019).

Transferability: Within the scope of the transferability studies, the raw data obtained were coded by the researchers without adding interpretation, independent of their prejudices, by describing the raw

data. Criterion sampling, one of the purposeful sampling methods, was used in the selection of participants, and the criterion for participating in the study was stated as being experienced in the education of gifted students. In order to reliably determine the professional competencies for the education of gifted students, participants were selected as experienced or postgraduate-level learners. The characteristics of the participants were explained in detail (Table 1). The researchers were teachers who had professional experience in the education of gifted students and had research on the education of gifted students. In order to collect in-depth data, the opinions of a sufficient number of participants (37 teachers) were obtained (Shenton, 2004).

Reliability: The purpose of the research was explained in detail, and the method was determined in accordance with the purpose. Coding was based on raw data. The opinions of different field experts were utilized in the development of the data collection tool. Pilot interviews were conducted with five teachers for the comprehensibility of the draft interview form (Lincoln & Guba, 1986; Shenton, 2004). The themes and sub-themes obtained as a result of coding were subjected to researcher and peer expert supervision (Stahl & King, 2020). The reliability rate of coding agreement between researchers was 95% and the reliability rate of coding agreement between expert opinions was 93% (Gentles et al., 2015, Miles & Huberman, 2015).

Confirmability: Confirmability means that all information and data related to the research process for the control of the research process are examined when necessary. In this way, the research process can be examined and the studies can be confirmed (Creswell, 2013). In this study, the raw data obtained within the scope of the verifiability strategy, analysis processes, coding, tables related to the themes and sub-themes, and the notes taken were archived in the computer environment of one of the researchers to be confirmed when necessary. Data analysis was triangulated by the researcher and data analysis was triangulated by the co-expert (Oliver-Hoyo & Allen, 2006).

Findings

The data obtained from the interviews with thirty-seven teachers participating in the research were analyzed and five themes were reached. These themes are given below;

- Theme 1. Teachers' Competencies in Professional Development
- Theme 2. Teachers' Competencies in Communication with Specially Gifted Students
- Theme 3. Teachers' Competencies in the Teaching-Learning Process
- Theme 4. Teachers' Competencies in Relationships with Family, School and Society
- Theme 5. Teachers' Competencies in Personal Characteristics and Professional Values

Theme 1. Teachers' Competencies in Professional Development

Teachers' views on the theme of teachers' competencies in the field of professional development are given in Table 3.

Table 3.
Teachers' Competencies in Professional Development

Theme	Teacher competencies	Frequency
Professional development	Providing continuous professional development	19
	Following innovations in the field	13
	Proficiency in the use of technology	8
	Competence in project writing and management	6
	Being a researcher	5
	Being open to innovations	5
	Having 21st-century skills	2
	Producing scientific products	2
	Postgraduate education in the field of expertise	1
	Specialization in the field	1
	Following scientific studies	1
	Ability to develop content	1

In the professional development theme, opinions were given as twelve sub-qualifications, and direct quotations from these opinions are given below;

“...I believe that all teachers, not only those who teach these students, should be provided with the necessary professional knowledge about the characteristics of gifted students, the process of identification, and how to apply them in the education process (T12).”

“Teachers should have the necessary technology usage in a professional sense. They should attend courses, workshops, and symposiums to improve themselves (T23).”

“They should be able to use technology actively and guide students (T25).”

“...competence in the technological field, mastering 21st-century skills, having knowledge and experience in project production and project development, etc. (T27).”

“Field knowledge, educational technologies, project development competence, web 2.0 technologies, should be experts in the fields (T31).”

The competencies that teachers should have regarding professional development are determined as providing continuous development, following developments in their field, being open to innovations, having the ability to use technology, having the ability to write and manage projects, being a researcher, having 21st-century skills, producing scientific products, having postgraduate education in their field, specializing in their field, following scientific studies, and being able to develop content.

Theme 2. Teachers' Competencies in Communication with Gifted Students

Teachers' opinions on the theme of teachers' competencies in the field of communication with gifted students are given in Table 4.

Table 4.

Teachers' Competencies in Effective Communication

Theme	Sub Themes	Teacher competencies	Frequency
Effective Communication	Skills for recognizing gifted students	Cognitive recognition of the students	5
		Knowing the student emotionally	4
		Recognizing/knowning students' personal characteristics	2
		Knowing the developmental characteristics of the student	2
		Getting to know the student socially	2
		Knowing the characteristics of students	1
	Interaction with students	Supporting students' imagination and productivity	3
		Developing children's research skills	1
		Stimulating children's sense of curiosity	1
		Having student-centered communication skills	1
		One-on-one attention in the classroom/teaching	1
		Give additional tasks to develop capability	1

Teachers' views on the theme of competencies that teachers should have while communicating with their students are grouped under two sub-themes: student recognition skills and interaction with students. The following are direct quotations from teachers' views on the theme of their competencies in communicating with their students;

“The personal characteristics of these students must be recognized (T6).”

“They should know the characteristics of gifted students (T8).”

“They should have knowledge about the characteristics of the students, know their emotional characteristics, know them well, and be able to prepare activities appropriate to their level (T30).”

“They should have good communication (T33).”

When the teachers' views on the theme of communication with students are evaluated, it is seen that knowing students cognitively, emotionally, and socially are important competencies in the dimension of knowing students. In addition, knowing students' personal characteristics and developmental characteristics were identified as other competencies related to knowing students. In the dimension of interaction with students, teachers' supporting students' imagination and productivity, developing students' research skills, giving additional skill-oriented tasks, stimulating their curiosity, and having student-centered communication skills were identified as other important professional competencies related to communication.

Theme 3. Teachers' Competencies in the Teaching-Learning Process

Teachers' views on the theme of teachers' competencies in the teaching-learning process are given in Table 5.

Table 5.
Teachers' Competencies in the Teaching and Learning Process

Theme	Sub Themes	Teacher competencies	Frequency
The process of teaching and learning	Instruction	Having field education/knowledge	8
		Making student-centered enrichments in the education program	7
		Having professional knowledge	7
		To be able to organize student-centered activities	6
		Utilizing different methods and techniques in teaching processes	5
		Making student-centered adaptations in the education program	3
		Activating students' higher order thinking skills	3
		Using the most appropriate methods and techniques for teaching	3
		Making student-centered adaptations in teaching processes	3
		Utilizing tools and materials to make teaching effective	3
		Making student-centered adaptations in measurement and evaluation	3
		Designing the teaching process according to the student	2
		Preparing activities for higher order thinking skills	2
	Teaching to improve knowledge	1	
	Ability to organize educational environments	1	
	Effective planning of training processes	1	
	Reorganizing the learning environment according to student feedback	1	
	To be able to make group work according to student abilities	1	
	Developing students' scientific writing skills	1	
	Emphasizing process-oriented development	1	
Classroom management		Guiding students in the learning process	4
		Creating a democratic classroom environment	2
		Motivating the student	2
		Creating a positive learning environment	1

Teachers' views on the theme of teachers' competencies in the field of the teaching-learning process were grouped under two sub-themes: teaching and learning and classroom management. Direct quotations from these opinions are given below;

“They should be able to use the most appropriate teaching methods and techniques (T2).”

“They should have professional knowledge, field knowledge, and field education knowledge. They should be able to construct the teaching process according to the student and apply the methods, techniques, and strategies correctly and appropriately. They should be able to apply the measurement

and evaluation process appropriately for the student and reorganize the teaching and learning process if necessary (T3).”

“They should have the knowledge and skills to create a democratic, innovative, and collaborative classroom environment that will support students' imagination and productivity. They should plan the education program they implement in the classroom in accordance with the individual interests and needs of the students and update these studies when necessary in the process. They should have the knowledge and experience to create a positive classroom environment by enriching the education program with activities that will make children aware of their individual talents (T7)”

“In order to trigger students' different thinking skills, they should ask additional questions, support them with additional tasks and responsibilities, spend one-on-one time in the classroom to develop their skills, and have them do additional work (T10)”

“A process-oriented approach should be followed by moving away from a result-oriented approach. The student should be given the opportunity to express himself/herself, his/her work should be evaluated from his/her perspective and motivation should be strengthened so that the student can use his/her performance at the highest level (T15).”

“They should be capable of creating enriched education plans (T35)”

When teachers' views on the teaching and learning process were evaluated, the most important competencies were determined as having field knowledge, making student-centered enrichments in the curriculum, having professional knowledge, organizing student-centered activities, and using different methods and techniques in teaching processes. Moreover, making student-centered adaptations in the curriculum, activating students' higher order thinking skills, using the most appropriate methods and techniques for teaching, making student-centered adaptations in teaching processes, making use of tools and materials that will make teaching effective, making student-centered adaptations in measurement and evaluation, and constructing the teaching process according to the student, Other competencies related to the teaching and learning process were identified as preparing activities for higher order thinking skills, the ability to organize educational environments to teach knowledge development, planning educational processes effectively, reorganizing the learning environment according to student feedback, having group studies according to student abilities, developing students' scientific writing skills and caring about process-oriented development.

When the classroom management dimension of teachers' views on the teaching and learning process is examined, the competency that is thought to be the most important is guiding students. In addition, creating a democratic classroom environment, motivating students, and creating a positive learning environment are the competencies that teachers think should be in the field of classroom management.

Theme 4. Teachers' Competencies in their Relations with Family, School and Society

Teachers' views on the theme of teachers' competencies in their relations with family, school, and society are given in Table 6.

Table 6.

Teachers' Competencies in their Relations with Family, School and Society

Theme	Sub Themes	Teacher competencies	Frequency
Family, school, and society relations	Within School	Having communication skills for stakeholders within the school	5
		Organize joint activities to improve peer interaction	2
		Collaboration with colleagues	2
	Outside of school	Cooperation with the family	3
		Guiding the family	3
		Collaborating with experts from different disciplines	1
		Following the student's SAC program	1
		Directing students to out-of-school learning environments	1

Teachers' views on the theme of teachers' competencies in their relations with family, school, and community were grouped under two sub-themes: inside and outside the school.

Below are direct quotations from teachers' views on the theme of teachers' competencies in their relations with family, school, and society;

“They should support/guide students and families in line with their abilities (T8).

“They should be in cooperation with the family, and if they go to SAC, they should be in contact with the teachers there (T10).”

“They should direct the student to out-of-school development environments (T18).”

“It is necessary to act in cooperation with the teachers in the class, to exchange information with the parents of the students, and to keep in touch with them (T19).”

When the competencies of teachers working with gifted students in their relationships with the family, school, and society are examined within the school, having communication skills for the stakeholders within the school is the most important, while organizing joint activities to improve peer interaction and being in cooperation with the teacher's colleagues were determined as important competencies. In the dimension of teachers' relationships outside the school, teachers' cooperation with the family and providing guidance to the family were identified as important competencies. In addition, it was determined that they should have competencies such as collaborating with different interdisciplinary experts, following the student's SAC program, and directing the student to out-of-school learning environments.

Theme 5. Teachers' Competencies in Personal Characteristics and Professional Values

Teachers' views on the theme of teachers' competencies personal characteristics and professional values are given in Table 7.

Table 7.
Teachers' Personal Characteristics and Professional Values

Theme	Sub Themes	Teacher competencies	Frequency
Personal characteristics and professional values	Personal characteristics	Having creative personality traits	4
		Producing practical solutions to problems	2
		Having a developed sense of empathy	2
		Patience	2
		Being a good observer	2
		Respect for differences	2
		Interest in art	1
		Being a good listener	1
		Being open to criticism	1
		Having broad interests	1
	Foresightedness	1	
	Setting an example with perseverance and hard work	1	
	Professional values	Having professional values	2
		Developing positive attitudes towards gifted students	2
		Complying with professional ethical rules	1

Teachers' views on the theme of teachers' competencies in the field of personal characteristics and professional values were grouped under two sub-themes: characteristic features and professional values. Direct quotations from these opinions are given below;

“He/she should be patient, researcher, and innovative (T14).”

“They should like research, follow scientific studies and produce scientific studies, be innovative, like to develop, productive, have flexibility, have developed communication skills, be a good listener, have high empathy skills (T17).”

“They should be curious, open to innovations, learn together with students, patient, creative, self-developing (T26).”

“Being reliable, cultural and academic development, multidimensional thinking, extensive professional experience, respect for individual differences, being democratic, cooperative and innovative (T27)”

“They should be creative, flexible, open to innovations and researchers (T29).”

When the theme of teachers' personal characteristics and professional values was examined, having creative personality traits was stated as the most important competency among teachers' personal characteristics. In addition, producing practical solutions to problems, having a developed sense of empathy, being patient, being a good observer, respecting differences, being interested in art, being a good listener, being open to criticism, having broad interests, being farsighted and being an example with perseverance and diligence were identified as other competencies in the theme of teachers' personal characteristics and professional values. In the professional values dimension, teachers' having professional values, developing positive attitudes towards gifted students, and complying with professional ethical rules were identified as other important professional values.

Discussion, Conclusion, and Suggestions

When the results of the research were examined, professional development, communication with gifted students, learning-teaching process, relations with family, school, and society, personal characteristics, and professional values were emphasized as areas of teacher competence. It is seen that similar areas are emphasized in the studies on professional competencies of teachers working in the education of gifted students (Chan, 2001; čotar Konrad & Kukanja Gabrijelčič, 2015; Gómez-Arizaga et al., 2016; Heath, 1997; Mills, 2003; Saadu et al., 2024; Vogl & Preckel, 2014).

It was determined that teachers working with gifted students should have competencies such as following the developments in their field, being open to innovations, having competence in the use of technology, having competence in writing and managing projects, being a researcher, having 21st-century skills, producing scientific products, doing postgraduate education in their field, specializing in their field, following scientific studies, and developing content. Because these competencies reflect the teacher profile that adapts to the changes taking place today in revealing the potential of gifted students (Adeoye et al., 2024).

Continuing post-service professional development of teachers working with gifted students is as important for their professional competencies as pre-service training (Croft, 2021). When the competency areas for professional development are examined, teachers need to constantly renew themselves to effectively support and guide gifted students. In similar studies, it is noteworthy that research findings on the active professional development of teachers to develop and renew their professional skills are also noteworthy (Neumeister et al., 2007). However, it was emphasized that teachers' pre-service training was not sufficient in the context of gifted education and that professional development was important in this context (Fraser-Seeto, 2013; Rowley, 2012; Sayi, 2018). However, when the relevant literature was examined, it was determined that the professional development of teachers for the education of gifted students was inadequate (Kalobo & Setlaltooa, 2024; Poulos & Jung, 2024). Inadequate professional development of teachers stands out as an important problem in terms of obtaining the expected qualified outcomes in the education of gifted students.

When the teachers' views on the theme of communication with students were evaluated, it was seen that knowing students cognitively, emotionally, and socially are important competencies in the dimension of knowing students. In addition, knowing the student's personal characteristics and developmental characteristics were identified as other competencies related to knowing the student. The first step in identifying the needs of gifted students, planning instruction to meet the needs of the student, and designing effective instructional processes is to know the student (Gómez-Arizaga et al., 2016; Shaughnessy & Senior, 2022; VanTassel-Baska & Johnsen, 2007; VanTassel-Baska & Baska, 2021). The inadequacy of teachers' knowledge, competence, and attitudes towards gifted students is an important problem for the welfare of gifted students and society (VanTassel-Baska & Stambaugh, 2005; OECD, 2010).

In the research findings, in the dimension of interaction with students, teachers' supporting students' imagination and productivity, developing students' research skills, giving ability-oriented additional tasks, activating their sense of curiosity, and having student-centered communication skills were identified as important professional competencies. In similar studies, there are similar findings in terms of mobilizing students' sense of curiosity (Akar, 2021; Saadu et al., 2024), giving ability-oriented challenging additional tasks (De Boer et al., 2018; Matheis et al., 2017) to guide gifted students correctly and support them in line with their abilities. Both of these teacher competencies are very important in terms of developing students' talents and sustaining talent development. Project-based research activities have an important place in the education of gifted students. In this context, students need to acquire scientific research skills and produce solutions to different problems with interdisciplinary thinking skills (Hess, 2021; Makkonen et al., 2021). In addition, students need to have research skills to have in-depth learning experiences and original studies in their fields of interest (Brown & Seymour, 2021). Teachers are role models in providing students with research skills (Chu, 2008; West Keur, 2019). Communicating effectively with students is among the basic professional skills that teachers should have (Florence et al., 2022; Khalil & Accariya, 2016). Effective communication is one of the key professional competencies for motivating students for learning goals, gaining self-confidence in their abilities, and guiding students effectively in line with their abilities.

When the teachers' views on the teaching and learning process were evaluated, it was determined that having field knowledge, making student-centered enrichments in the curriculum, having professional knowledge, being able to organize student-centered activities, and benefiting from different methods and techniques in teaching processes were the most important competencies in the dimension of education and training. In addition, making student-centered adaptations in the curriculum and teaching processes, making use of methods and tools, and materials that will make teaching effective, planning educational processes effectively, reorganizing the learning environment according to student feedback, and caring about process-oriented development, having group studies according to student abilities, developing students' scientific writing skills, preparing activities to develop higher-order thinking skills, teaching to develop knowledge, were determined as other competencies related to the teaching and learning process. These skills are professional skills that are necessary for teachers to carry out the teaching profession effectively and successfully (Aktan & Budak, 2021). In this context, in the teacher competencies announced by the Ministry of National Education [MoNE], the sub-qualification areas of planning the teaching process, creating learning environments, managing the teaching process, and measurement and evaluation were expressed as sub-qualification areas related to the professional skills competency area (MoNE, 2017). In the studies conducted in the literature, it was determined that as a result of not designing the teaching process for the interests and learning goals of gifted students, students' interest and attention towards the lesson decreased, they exhibited problem behaviors, and thus had problems in realizing their potential (Callahan et al., 2015; David, 2018; Rogers, 2007; VanTassel-Baska & Stambaugh, 2005; Webb, 2005; Yang & Siegle, 2006). Teachers' professional competencies should be improved in terms of planning, implementing, enriching, and evaluating the gifted student-oriented teaching process to sustain the student's gifted development (VanTassel-Baska, 2019; VanTassel-Baska et al., 2021).

When the classroom management dimension of teachers' views on the teaching and learning process is examined, the competency that is thought to be the most important is guiding students. Effective guidance for gifted students contributes to meeting their cognitive, social, and emotional needs and sustaining their talent and career development (Grassinger et al., 2010; Greene, 2005; Little et al., 2010; Levent, 2016). In addition, supporting students' imagination and productivity, creating a democratic classroom environment, motivating students, and creating a positive learning environment are also competencies that teachers are thought to have in the field of classroom management. In different research findings, some findings create a positive and reliable learning environment (Akar, 2020; Gentry et al., 2011; Vogl & Preckel, 2014), creating a democratic classroom environment (Hardarı et al., 2020; Lee et al., 2021), developing students' imagination (Altintas & Ozdemir, 2015; Gotlieb et al., 2016; Renzulli et al., 2022), and motivating students (De Boer et al., 2018; Hornstra et al., 2020; Phillips & Lindsay, 2006; Sypré et al., 2023), make significant contributions to the academic and social development of gifted students. However, some students do not receive the necessary academic and social support from their families (Olszewski-Kubilius et al., 2014; Papadopoulos,

2021). For this reason, guidance of teachers towards gifted students is among the most important professional competencies.

When we look at the competencies of teachers working with gifted students in their relationships with family, school, and society within the school, having communication skills for stakeholders within the school is the most important, but organizing joint activities to improve peer interaction and being in cooperation with colleagues are other important professional competencies. When we consider the dimension of teachers' relationships outside the school, teachers must cooperate with the family and guide the family. In addition, it was determined that they should have competencies such as collaborating with different interdisciplinary experts, following the student's SAC program, and directing the student to out-of-school learning environments. In this context, effective communication with teachers within the school supports the professional development of the teacher (Cotabish & Robinson, 2012; Mofield & Phelps, 2021), while effective communication with stakeholders outside the school supports the professional development of the teacher as well as the development of the gifted student (Freeman, 2001; Ritchotte & Zaghlawan, 2019). In order to develop the potential of gifted students in line with their abilities, the teacher must have the ability to collaborate with experts in different fields together with the family (Akar, 2020; Matthews et al., 2007).

When the theme of teachers' personal characteristics and professional values was examined, having creative personality traits came to the fore as the most important competence among teachers' characteristic traits. In similar studies, it was determined that having creative personality traits of teachers improves creative teaching and students' creativity (Al-Dababneh & Al-Zboon, 2017; Chan & Yuen, 2014; Ford & Trotman, 2001; Gralewski & Karwowski, 2018; Horng et al., 2005; Lee & Kemple, 2014). Other characteristics of the teachers in the study were as follows: producing practical solutions to problems, having a developed sense of empathy, being patient, being a good observer, respecting differences, being interested in art, being a good listener, being open to criticism, having broad interests, being forward-thinking, and being an example with perseverance and hard work. Research findings are consistent with similar research findings (Chan, 2001; Khalil & Accariya, 2016; Mills, 2003). Teachers' personality characteristics such as imagination, empathy, patience, perseverance, diligence, and interest in art make student-teacher interaction strong (Kesner, 2005; Klassen & Tze, 2014).

In the professional values dimension, teachers' having professional values, developing positive attitudes towards gifted students, and complying with professional ethical rules were identified as important professional values. Teachers involved in the education of gifted students should take into account the value judgments, strengths and weaknesses, and prioritized needs of students (Matthews & Foster, 2005). In addition, teachers are expected to have professional values such as being supportive of students, patient, respectful, and cooperative. Advisors and mentors in gifted education should understand the structure, culture, and community partnerships of the institution and be patient and collaborative in facilitating relationships. As with teachers working with gifted students, consultants need to be flexible, recognizing that it is sometimes necessary to modify their approach to accommodate teachers' workloads, schedules, values, priorities, comfort levels, instructional preferences, strengths, and weaknesses (Hoth et al., 2017; Matthews & Foster, 2005). When there is a supportive, mutually respectful, and collaborative relationship between mentors and classroom teachers in gifted education, teachers can be productive and fulfilled (Matthews et al., 2007). In 2006, the National Association for Gifted Children & Council for Exceptional Children, and The Association for the Gifted [NAGC/CEC-TAG] set teacher standards for the education of gifted students. Among these standards, professional practices and ethical principles in relation to students are also included.

Conclusion

When the results of the research were evaluated in general, a total of fifty-six sub-qualifications were identified based on the teachers' opinions, including twelve sub-qualifications related to professional development, twelve sub-qualifications related to communication with gifted students, twenty-four sub-qualifications related to learning-teaching process, and eight sub-qualifications related to relations with family, school, and society. For the theme of professional development, competencies such as providing continuous development, following developments in the field, being open to innovations,

having competence in the use of technology, having competence in writing and managing projects, being a researcher, having 21st-century skills, producing scientific products, doing postgraduate education in the field, specializing in the field, following scientific studies, and developing content were identified.

In the theme of communication with students, competencies such as getting to know students cognitively, emotionally, and socially, knowing students' personal characteristics and developmental characteristics, supporting students' imagination and productivity, developing students' research skills, giving students additional talent-oriented tasks, stimulating students' curiosity, and having student-centered communication skills were emphasized. For the teaching and learning process, competencies such as having field knowledge, making student-centered enrichments in the curriculum, having professional knowledge, organizing student-centered activities, using different methods and techniques in teaching processes, making student-centered adaptations in the curriculum and teaching processes, using methods and tools to make teaching effective were expressed. As additional competencies for the teaching and learning process, competencies such as planning educational processes effectively, reorganizing the learning environment according to student feedback and caring about process-oriented development, having group studies according to student abilities, developing students' scientific writing skills, preparing activities to develop higher-order thinking skills, and teaching to develop knowledge were identified. In the classroom management dimension, competencies such as guiding students, supporting students' imagination and productivity, creating a democratic classroom environment, motivating students, and creating a positive learning environment were identified.

It was determined that teachers working with gifted students should have competencies such as having communication skills for stakeholders within the school, organizing joint activities to improve peer interaction and cooperating with the teacher's colleagues, cooperating with the family and guiding the family, cooperating with different interdisciplinary experts, following the student's talent program, directing the student to out-of-school learning environments. As personal characteristics and professional values, professional competencies such as having creative personality traits, producing practical solutions to problems, having a developed sense of empathy, being patient, being a good observer, respecting differences, being interested in art, being a good listener, being open to criticism, having broad interests, being forward-thinking, being an example with perseverance and diligence, and following ethical principles were identified.

Recommendations

Based on the findings of the research, the following recommendations are proposed;

- In-service professional development activities aimed at improving teachers' professional competencies, ensuring their continuous professional development, and developing their research and technological skills can be improved in terms of quantity and quality.
- Publications that teachers can follow the innovations and developments in gifted education can be increased and their accessibility to publications can be ensured.
- The content of pre-service teacher training programs for professional competencies for the education of gifted students can be enriched.
- Teacher professional development programs for the education of gifted students can be prepared, and implemented and their effectiveness can be evaluated to improve teachers' professional competencies.

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we declare that there is no conflict of interest between the authors, which all authors contribute to the study, and that all the responsibility belongs to the article authors in case of all ethical violations.

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