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# Examining Classroom Teachers' Self-Efficacy Perceptions Regarding Differentiated Instruction and Their Professional Self-Efficacy Perceptions

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***Abstract***

It is highly probable that every student whose individual differences are accepted and made to feel valued will be able to achieve success. At this point, differentiated teaching emerges as a theory that addresses individual differences and offers students the opportunity to learn in flexible and collaborative environments with diversity. In order for differentiated teaching to be implemented efficiently, classroom teachers need to know the differences of their students and differentiate education in a way that can address them. This research was conducted in a quantitative research with a relational screening model in order to determine the level of self-efficacy perception of classroom teachers regarding differentiated teaching and to reveal whether there is a significant relationship between the self-efficacy perception levels of teachers, who are the key implementers of differentiated teaching, regarding the profession. The universe of the research consisted of classroom teachers working in primary schools affiliated with the Muş National Education Directorate in the 2023-2024 Academic Year. The sample group in the research process consisted of 355 classroom teachers determined by simple, unbiased sampling. For the purpose of the research, the "Differentiated Instruction Self-Efficacy Scale" and "Teacher Self-Efficacy Perception Scale" were applied to the teachers. As a result, it was revealed that the differentiated instruction self-efficacy beliefs and participation levels of the classroom teachers were high, and it was determined that there was a positive linear and strong relationship between the differentiated instruction self-efficacy perceptions and professional self-efficacy perceptions, and that the differentiated instruction self-efficacy perceptions positively and strongly affected the professional self-efficacy perceptions.

**Keywords:** Differentiated instruction self-efficacy perception, Professional self-efficacy perception, Class teachers

**This study is derived from a master's thesis conducted under the supervision of Assoc. Prof. Dr. Eyüp Bozkurt.

## 1. Introduction

Individuals exhibit different developmental characteristics, go through different experiences, and acquire different individual skills. This difference is the most concrete reason why we need to use different methods in order to understand and meet the needs of the student in the education and training process, and to increase efficiency and permanence. Differentiated teaching, which we can define as sensitive to the needs of individuals, is one of the most effective approaches that can plan according to the desires, goals, and needs of individuals and respond to these differences (Algozzine and Anderson, 2007; Gregory and Chapman, 2012; Tomlinson; 2014). Students have many skills and talents waiting to be discovered. These skills and talents can be suppressed in classes where a single-type education is provided and where students do not feel like they belong. When teachers organize a curriculum parallel to the individual pace of students and make them feel that they accept them as they are, they create responsibility in the student, and the student motivates himself to do the best he can and achieve success, creating a sense of belonging (Green, 2011). Gregory and Chapman's (2002) statement "the same dress does not fit all sizes" is the main sentence that forms the starting point of differentiated instruction and also reveals the importance of this research. In order for differentiated instruction to be implemented efficiently, classroom teachers need to know the differences of their students and differentiate the education in a way that can be addressed. Differentiated instruction primarily includes practices that appeal to the personal characteristics that arouse curiosity in order to make the student active and successful. The key point for students motivated by these practices to progress at their own pace and be more successful is the teacher. The teacher's knowledge and skills

regarding differentiated instruction and their capacity to implement it are extremely important for success and efficiency. In order for all of these to happen, the importance of the qualities that teachers have comes to the fore. The fact that the qualities that teachers have are at the desired level mostly depends on the teachers' awareness of their self-efficacy levels (Eker, 2014). Self-efficacy is defined by Woolfolk Hoy and Tschannen-Moran (2001) as "A teacher's judgment about whether he/she can achieve the desired results, such as learning and establishing connections, in students with the skills he/she has." In addition to the professional knowledge the teacher has, he/she must also have the competence to convey this information correctly (Oğuz, 2023). Bandura (1997) states that teachers with high self-efficacy put more effort into the learning environments they will create in the lesson, play a supportive role in the students' goals with these environments, and increase their interest and motivation. Based on all these, we can say that teachers' professional self-efficacy beliefs should be high in order to create positive learning environments for students, and their self-efficacy beliefs regarding differentiated instruction should be high in order to differentiate the process for each student. While examining teachers' self-efficacy perceptions regarding differentiated instruction at the point of actively using the theory, it was also necessary to examine teachers' professional self-efficacy perceptions. According to Sharp (2002); When individuals believe that they have the ability and control power needed to perform a task, they become determined, willing and do what is necessary to fulfill this task. Gordon, Lim, McKinnon and Nkala (1998) define teacher self-efficacy belief as teachers' belief that they have the ability to influence/change the behavior and performance of their students (Kurbanoğlu, 2004).

The problem statement of this research was determined as “Is there a relationship between classroom teachers’ self-efficacy perceptions regarding differentiated instruction and their professional self-efficacy perceptions?”.

The research aims to find answers to the following questions;

1. What is the level of self-efficacy perceptions of classroom teachers regarding differentiated instruction?
2. Do classroom teachers' self-efficacy perceptions regarding differentiated instruction;

   (a) Gender
   (b) Age
   (c) Professional seniority
   (d) Show a significant difference according to the variables of level of education?
3. What is the level of professional self-efficacy perceptions of classroom teachers?
4. Do classroom teachers' professional self-efficacy perceptions;

(a) Gender
(b) Age
(c) Professional seniority
(d) Show a significant difference according to the variables of level of education?

5. Is there a significant relationship between classroom teachers' self-efficacy perceptions regarding differentiated instruction and their professional self-efficacy perceptions?

In differentiated teaching, content is enriched by using various teaching materials. Thus, the process and the resulting product are also differentiated. Flexible and free learning environments that include students learning from each other during the learning process ensure that meaningful learning takes place for each student. With meaningful learning, permanent learning also takes place. The differentiated teaching method enables students to discover and become aware of their skills and abilities, allowing them to develop positive self-perceptions. It also raises awareness of what they have and positively affects their sense of belonging to the class they are in, thus contributing greatly to the student's personal development (Passarelli & Kolb. 2012).

Course design with differentiated teaching practices is grouped under 3 subheadings: Planning, implementation and evaluation. First, the objectives/gains of the course should be determined during the planning phase. Demir (2021) states that the most important element in determining the method to be used in educational activities is its compliance with the objectives/gains. Content and skills are determined in a way that is suitable for the targeted gains. Before starting the learning process, students' learning profiles and readiness should be determined with preliminary assessment techniques (Anderson, 2007). Thanks to this determination, the method, technique and activities that will suit their needs are selected. In order to best convey the selected method, technique and activities, the appropriate and necessary materials are prepared (Passarelli & Kolb 2012). In the implementation phase, first of all, it is necessary to decide what kind of learning product will be produced by choosing individual or group work in accordance with the student's wishes and needs (Algozzine &

Anderson, 2007). The process should proceed in an interesting way for children. Then, in a flexible learning environment, the process should be managed with complementary activities for students with lower levels of proficiency and enriching activities for students with more advanced levels (Bender, 2008). The evaluation phase continues throughout the process. Evaluation should be done at every stage when starting, working on and finishing the unit (Demir, 2021). The dimension of learning and whether the achievements/goals have been achieved are revealed with the product produced. Demir (2013) defines the product as "outputs as a result of learning". Since process-based evaluation is based on, the desired product can be achieved with supportive and enriching touches.

Differentiated instruction was created by blending many theories, approaches and understandings (Şentürk, 2017). Differentiated instruction, which emerged due to individual differences among students in the classroom environment, has increased its importance thanks to the perspective that sees the needs and interests of each student as necessary; then, it has emerged as an important application in schools as a highly applicable and popular approach in the 21st century due to its student-centered approach (Tanjung & Ashadi, 2019; Şentürk, 2017). When theoretically differentiated instruction is examined, it is seen that it is based on social constructivism theory, brain-based learning, multiple intelligence theory, inclusive education and learning styles (Subban, 2006; Avcı and Yüksel, 2018; Demir, 2013). Social constructivism theory is defined as students being able to move beyond their existing learning levels and doing the best they can (Drapeau, 2004; Özer and Yılmaz, 2016). The intersection of social constructivism and differentiated instruction is the different sociocultural environment in which each student is raised, the need for guidance differing for each student, and the existence of various practices in the classroom according to the needs of the student (Davydoy and Kerr, 1995; Kim and Hannafin, 2011; Wilson and Devereuw, 2014). According to Vygotsky, in the cognitive development process that follows the path from the environment to the individual, internalization and assimilation are extremely important in making sense of information (Rodriguez, 2012). Brain-based learning, which enriches learning environments in the process of internalizing and assimilating information, offers students different alternatives, and centers on collaboration, is at the core of differentiated instruction (Blozowich, 2001; Gülay, 2021). In differentiated instruction, which will take shape according to how students learn, it is important to benefit from the theory of multiple intelligences, which explains the different learning styles of students (Demir, 2013). Howard Gardner (1999), the founder of the theory of multiple intelligences, argued that there is a direct connection between individuals' thinking styles and learning processes and their dominant intelligences, therefore, the intelligence area(s) an individual has affect how they learn and that effective learning strategies should be developed in line with the dominant intelligence(s). The main goal of differentiated instruction is to differentiate instruction based on all students (Gheyssens, Griful-Freixenet, & Struyven, 2023; Demir, 2013) and the process of reaching the potential of each student is inclusive education (Türkmenoğlu, 2022). Learning styles are a preferred way for students to perceive, remember, process and assimilate different information (Dunn & Dunn, 1993; Kolb, 1984).

#### *2.1.3.* Principles of Differentiated Instruction

***Differentiated teaching focuses on individual differences:*** Just as each individual's fingerprint is different, individuals' interests, needs, and the process of receiving and internalizing information are different from each other (Tanjung and Ashadi, 2019; Şentürk, 2017). The student should feel accepted with their individual differences.

***Differentiated teaching focuses on basic concepts and principles:*** It is not possible to go into all the details of a given piece of information and teach it in every aspect. For this reason, the basic key points of the information are given and then other aspects are learned with various activities.

***Evaluation in differentiated teaching is process-based:*** In classes where differentiated teaching is applied, the result is not considered when making an evaluation. It is important how much progress has been made towards the acquisition skills determined from the very beginning of the learning process. In order to manage the other learning process, evaluation results serve to formalize teaching (Kaur and Mohammad, 2018).

***Subjects in differentiated teaching are related to real life:*** In differentiated teaching, the student's existing world experiences are of great importance. It is clear that meaningful and permanent learning cannot be achieved in learning environments that are not related to real life or are weakly established.

***In differentiated teaching, there is cooperation between both students and the teacher:*** Cooperation is given importance when organizing learning environments because the student is both the subject and the object of the learning environment and at this point they manage it in cooperation with the teacher.

***In differentiated teaching, individual differences are focused on and content, process and product are diversified:*** Offering diversity that can appeal to every student is of great importance for learning to take place. This diversity should be at every stage of teaching, not just at one stage, so that it can increase its effectiveness (Tanjung, & Ashadi, 2019).

***A flexible learning environment is created in differentiated teaching:*** It creates flexible environments where students can feel free and create their own learning. They manage the learning process themselves and this management is flexible, not strict.

***Differentiated instruction addresses different intelligence concepts:*** In differentiated instruction, which is based on the concept of multiple intelligences, instruction can be diversified according to each student's dominant intelligence/intelligences (Alsubaie, 2020).

***In differentiated instruction, plans are made according to the students:*** Plans are made on how the instructional process will be carried out by focusing on the student's level of readiness, individual differences, dominant intelligence/intelligences, and learning styles, and achievements can be added or removed (Desinguraj & Ebenezer, 2021).

***In differentiated instruction, homework assignments are presented with multiple options:*** Just as there is diversity in classes where differentiated instruction is applied, there should also be diversity in the assignments given. Each student should take responsibility for their own learning and choose the most appropriate homework assignment for themselves from among various options, knowing where they are lacking and where they need to be developed (Desinguraj & Ebenezer, 2021).

### *2.1.2.* Strategies of Differentiated Instruction

According to Tomlinson (1995), differentiated teaching strategies are tools that increase the effectiveness of teaching practices. Differentiated teaching strategies allow teachers to choose the form of differentiation and students to choose the learning path that suits them (Demir, 2013). A teacher who actively implements differentiated teaching in the classroom has various strategies that can differentiate the lesson in terms of content, process and product (Avcı and Yüksel, 2018). The most preferred differentiated teaching strategies are learning centers, stations, multi-layered teaching (graded teaching), agendas, reading circles, learning contracts, and entry points.

**Learning Centers:** Areas where each student takes responsibility for their own learning and actively participates, where there are tools/equipment for their desires, interests and needs are called centers (Gregory and Chapman, 2002). There are interest and learning centers. In 2018, Avcı and Yüksel defined learning centers as areas where various activities and materials are together to teach or develop a specific skill or concept. Thanks to the learning centers strategy, students have the opportunity to work interdisciplinary and learn. Collaboration, interaction and communication between students increase with group work (Lemlech, 2011; Salar and Turgut, 2015; Köksal, 2016; Şentürk, 2017).

**Stations:** Various groups where students are interested in different activities at the same time are called stations (Tomlinson, 2005). The strategy is carried out by dividing students into heterogeneous groups of 4-5 people. The formation of groups is flexible. Brainstorming is used when creating stations. Stations are one or more learning areas/areas that include activities aimed at the skills and achievements that students need to acquire, equipped with materials that they can actively use in classroom or out-of-class environments (Breyfogle, Nelson, Pitts and Santrich, 1976; Gregory and Hammerman, 2008). Stations are suitable for active use in differentiated teaching because they offer various tasks in accordance with individual differences and learning styles.

**Multi-level Teaching (Graduated Teaching):** It is the presentation of step-by-step activities within differentiated teaching practices applied to students whose levels, readiness, perception levels, and learning styles are different from each other in a classroom environment. It is the preparation of activities at various difficulty levels regarding the same subject or skill that is intended to be taught (Richards and Omdal, 2007). In their studies conducted in 2011, Fox and Hoffman defined graded activities as all students working in levels and groups that include different activities for the same

goal. The aim is to prevent difficulties that may arise in cases where the teaching is not suitable for the level and needs of the student in terms of content-process-product (Tuccillo, 2018). In order to create meaningful and permanent information about a subject, students who lack prior knowledge and skills are given the opportunity to correct their deficiencies; and students at higher levels who do not have deficiencies are given the opportunity to deepen and internalize (Richards and Omdal, 2007).

**Agendas:** Lists of tasks that students are expected to perform in a classroom environment within a certain period of time are called agendas. There are common or different tasks for students. Some tasks require group work and some tasks require individual work. The completion time for the given tasks is approximately 2-3 weeks. The time required to complete the tasks is determined according to their learning speed. In this case, it prevents students at higher and lower levels from breaking away from the process (Tomlinson, 2014). The individual learning speed is the center for the agendas, and arrangements are made accordingly. It reveals the connection with differentiated teaching with task notifications at different levels. In this process, the teacher is the guide, follows, examines and guides (Tomlinson, 1999; Ekinci, 2016).

**Reading Circle:** Individuals are divided into book groups according to their interests. With the teacher guiding the student, the student reads the books themselves, meets daily or weekly, discusses the sections read, presents their ideas to each other and reports the results to each other (Özer and Yılmaz, 2018). In this group work, individuals contribute to the development of the mental schemas of other group members (Avcı, Baysal, Gül and Yüksel, 2013). This strategy is generally applied within the library club today (Avcı and Yüksel, 2018). The literature circle strategy is suitable for use starting from the third grade (Smith, 2003).

**Learning Agreements:** Agreements made between the teacher and the student in which options and freedoms are offered regarding what to study in which environment and how to express the learned information so that students can acquire the skills and concepts that the teacher calls important within a certain period of time are called learning agreements (Tomlinson, 2011).

***Entry Points:*** The teaching strategy that focuses on students whose talent areas differ by showing different cognitive development characteristics is called entry points (Gardner, 1983). The teacher is careful to create different entry points according to the student's interests, desires and needs, thus providing the student with a free learning environment. Gardner (1983) defines entry points in five different ways:

**1. Basic Entry Point:** These are the points where concepts and topics are deepened and terms and philosophy are included.

**2. Narrative Entry Point:** These are the points where stories appropriate to the concept and content being covered are written and told, and the narrative technique is actively used.

**3. Logical – Quantitative Entry Point:** These are the points where the scientific approach is used with quantitative data and deductive approach for the concepts and skills that are targeted to be learned.

**4. Experiential Entry Point:** These are the points where applications are made by working with tools/equipment materials for the concepts and skills expected to be learned.

**5. Aesthetic Entry Point:** These are the points where the emotional/feeling aspects of the concepts and topics targeted to be learned are emphasized.

### 2.1.3. Benefits of Differentiated Instruction

It has been determined that using differentiated instruction in learning environments has many benefits. These benefits are as follows (Heacox, 2002; Tomlinson, 1999, 2014; Avcı and Yüksel, 2018):

It strengthens the communication between students and each other, provides an environment that will facilitate the learning of each student with different learning levels, and provides an environment that will facilitate the learning of each student through various applications and activities. It provides permanent and meaningful information by establishing a bridge between daily life and the information learned. It leads to the formation of positive classroom environments and the development of dominant intelligence/intelligence areas thanks to the various teaching strategies and activities that appeal to different intelligence areas it contains. It paves the way for the formation of many values such as cooperation, cooperation, collaboration skills and sharing in students with interactive and positive classroom environments, and enables students to take responsibility. It ensures that students experience the sense of achievement and thus increase their motivation thanks to flexible learning environments that appeal to each student with different applications suitable for each student's learning speed.

### 2.2. Perception of Self-Efficacy

According to Bandura (1984), self-efficacy is the belief that individuals can be successful in difficult tasks. Our psychological stance against any situation, our belief that we can do it, makes us strong against that situation and increases our ability to do it. Zimmerman (2000) revealed the relationship between concepts such as self-efficacy, self-esteem, and self-awareness in his research and stated that it is directly related to learning motivation.

### 2.3. Teacher Self-Efficacy Perception

The professions that individuals do are related to the knowledge and skill levels they have. Skills are developed, deficiencies are noticed and tried to be completed, especially through practical applications carried out during the process of acquiring a profession. Differently, in the teaching profession, it is very important for the teacher to be able to transfer the knowledge and skills he has to his students (Çapa, 2005). The teacher may have developed himself well enough, but if he cannot transfer it to the student at a sufficient level and in a way that appeals to him, it is meaningless. The high self-confidence, self-esteem and self-efficacy perceptions of the teacher affect the professional self-efficacy perception. Teachers who feel competent, believe that they can cope with problems and create learning environments according to the different requests and needs of each student have high professional self-efficacy perceptions (Westergard, 2013). Self-efficacy is the personal and professional development that the teacher puts forward in this process with the belief that students can learn despite all the different variables and the effort they put forth for them to learn (Korkut, 2012). Teachers with a high level of self-efficacy believe that they can control students' success by motivating them (Woolfolk-Hoy and Hoy, Tschannen-Moran, 1998). Professional self-efficacy is constantly open to development. Teachers should be aware of their self-efficacy and should improve their competence to a level at least as good as their professional knowledge. Since self-efficacy perception is shaped by the environment, starting from the family, and then in the schools where most of their time is spent, teachers' self-efficacy perceptions are of great importance (Önen and Öztuna, 2005). It has been determined that teachers with a high level of self-efficacy are more sensitive to the demands and needs of their students and prepare differentiated positive learning environments accordingly (Bıkmaz, 2004; Selçuk, 2016).

## METHOD

The research was conducted by choosing the relational screening model, one of the quantitative research methods, in order to reveal the relationship between the self-efficacy perceptions of primary school teachers regarding differentiated teaching practices and their professional self-efficacy perceptions. The purpose of using the model is to clearly describe an existing situation as it is. The aim of the relational screening model is to determine the relationship between at least two variables, the degree of the relationship, or both (Karasar, 2011).

### Working Group

The universe of the study consisted of classroom teachers working in primary schools affiliated with Muş MEM in the 2023-2024 academic year. The sample group in the research process consisted of 355 classroom teachers determined by simple, unbiased sampling. It was determined that 68.2% (n=242) of the classroom teachers participating in the study were female, 31.8% (n=113) were male; 25.9% (n=92) were 22-25 years old, 36.9% (n=131) were 26-30 years old, 24.5% (n=87) were 31-40, 7.9% (n=28) were 41-50, and 4.8% (n=17) were 51 years old and over. According to their education levels, it was determined that 75.2% (n=267) of the teachers had a bachelor's degree, 24.7% (n=88) had a postgraduate education. When the years of professional service of the teachers were examined, it was determined that 49.9% (n=177) had 0-5 years, 32.1% (n=114) had 6-11 years, 10.7% (n=38) had 12-17 years, and 7.3% (n=26) had 18 years or more of service. It was determined that 26.5% (n=94) of the teachers had received training on differentiated instruction (Table 1).

**Table 1** *Descriptive characteristics of classroom teachers*

| | | ***Number (n)*** | ***Percent (%)*** |
|---|---|---|---|
| ***Gender*** | Female | 242 | 68,2 |
| | Male | 113 | 31,8 |
| | Total | 355 | 100,0 |
| ***Age*** | 22-25 | 92 | 25,9 |
| | 26-30 | 131 | 36,9 |
| | 31-40 | 87 | 24,5 |
| | 41-50 | 28 | 7,9 |
| | 51 and above | 17 | 4,8 |
| | Total | 355 | 100,0 |

| | | | |
|---|---|---|---|
| ***Education Level*** | University (Undergraduate) | 267 | 75,2 |
| | Master's Degree | 85 | 23,9 |
| | Doctorate | 3 | ,8 |
| | Total | 355 | 100,0 |
| ***Whether to Receive Differentiated Education or Not*** | Yes | 94 | 26,5 |
| | No | 261 | 73,5 |
| | Total | 355 | 100,0 |
| ***Seniority*** | 0-5 year | 177 | 49,9 |
| | 6-11 year | 114 | 32,1 |
| | 12-17 year | 38 | 10,7 |
| | 18 years and above | 26 | 7,3 |
| | Total | 355 | 100,0 |

**Data Collection Tools**

A quantitative research method was used in the study. For the purpose of the research, the "Differentiated Instruction Self-Efficacy Scale" and "Teacher Self-Efficacy Perception Scale" were applied to the teachers.

**Personal Information Form:** In order to determine the demographic characteristics of the teachers, the Personal Information Form prepared by the researcher included questions regarding gender, age, professional seniority and status of receiving training on differentiated instruction.

**Differentiated Instruction Self-Efficacy Scale:** The Differentiated Instruction Self-Efficacy Scale developed by Mutlu, Öztürk, and Aktekin (2019) was used to evaluate the self-efficacy perceptions of classroom teachers regarding differentiated instruction, consisting of a total of 26 items. As a result of the factor analysis conducted regarding the factors and relevant items of the scale, the scale was examined in 3 sub-dimensions. Since the first dimension expressions included items related to the teacher's determination of goals/gains, appropriate material development, and activity creation competencies, it was named "Planning". The factor loadings of the expressions in this dimension varied between 0.49 and 0.77. Since the second dimension expressions included statements regarding the implementation of prepared materials and activities with various teaching strategies in the classroom environment, it was named "Implementation". The factor loadings of the expressions in this dimension varied between 0.43 and 0.61. Since the expressions in the third dimension included the teacher's competencies in evaluating students, it was named "Evaluation". The factor loadings of this dimension varied between 0.43 and 0.69. It can be said that the factor loadings of all expressions in the scale are medium to high (Büyüköztürk, 2002).

In this study, the KMO value was found as 0.969; Bartlett's sphericity value was found as 14335.97 as a result of the Differentiated Instruction Self-Efficacy Scale (DIS) factor analysis. The smallest factor loading varied between .724 and .841. The explanatory variance of the scale was found as 79.16%. This result was seen as a result of the validity and usability of the scale.

The score range that can be obtained from the self-efficacy scale is 26-130. The scale was prepared as a 5-point Likert. The Cronbach Alpha values of the reliability test of the scale were calculated as Planning $\alpha$= 0.91, Implementation $\alpha$= 0.90, Evaluation $\alpha$=0.87, respectively. The overall reliability coefficient of the scale was found as $\alpha$= 0.95. According to these results, it was concluded that the scale and its sub-dimensions were quite reliable.

In this study, as a result of the reliability analysis of the differentiated instruction scale, the reliability coefficient value for the planning dimension was found to be 0.977; the reliability coefficient value for the application dimension was found to be 0.977; the reliability coefficient value for the evaluation dimension was found to be 0.960 and the reliability coefficient value for the entire scale was found to be 0.989. This result indicates that the scale and its sub-dimensions have a high level of reliability.

**Teacher Self-Efficacy Perception Scale:** The "Teacher Self-Efficacy Perception Scale" was used to determine the professional self-efficacy perceptions of classroom teachers. This scale was developed by Tschannen-Moran and Woolfolk-Hoy (2001) and contains 24 statements. This scale, which has a 5-point Likert type, consists of three sub-dimensions: student participation, teaching strategies and classroom management. This scale was adapted to Turkish by Çapa, Çakıroğlu and Sarıkaya in 2005. In this study, Cronbach Alpha Reliability Coefficients were calculated as "student participation" □=0.90, for teaching strategies dimension □=0.92, for classroom management □=0.91 and for the entire

scale □=0.96. According to these results, it was concluded that the Teacher Self-Efficacy Perception Scale is valid and has high reliability. In this study, as a result of the factor analysis of the teacher self-efficacy perception scale applied to classroom teachers, the KMO value was found to be 0.969; Bartlett's sphericity value was found to be 10374.634. The smallest factor loading varied between .642 and .784. The explanatory variance of the scale was found to be 71.82%. This result revealed that the scale was valid and usable. According to the study results, as a result of the reliability analysis of the classroom teachers' professional self-efficacy perception scale; Cronbach Alpha reliability coefficients were found to be □=.947 for student participation dimension, □=0.956 for teaching strategies dimension and □=0.91 for classroom management dimension, respectively, and □=.951 for the entire scale. These results show that the Teacher Self-Efficacy Perception Scale is highly reliable.

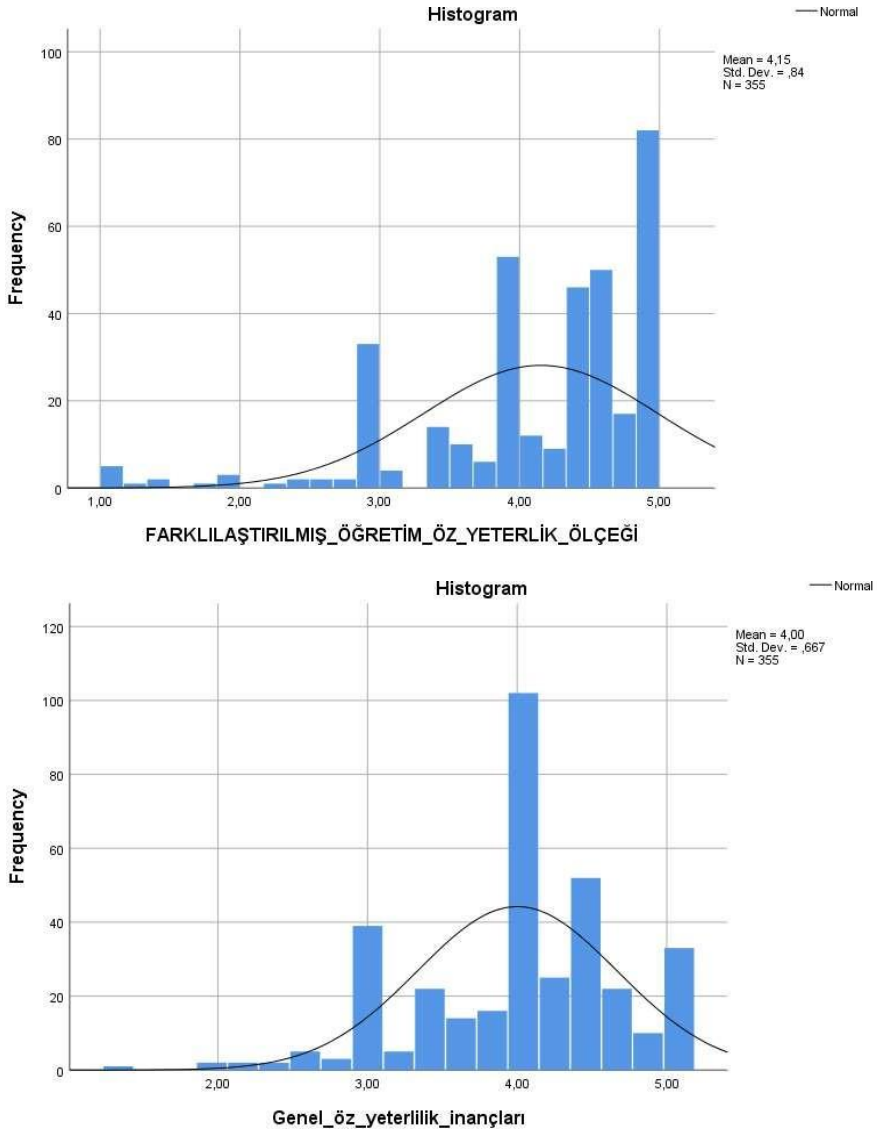
**Data Collection and Analysis**

In the study, scale forms from quantitative data collection tools were applied to examine the self-efficacy and professional self-efficacy perceptions of classroom teachers regarding differentiated instruction. The data obtained from the scales to be applied in the data analysis were examined using the licensed SPSS 24.0 package program. A five-point Likert-type scale was used and the evaluations were made based on this. "Arithmetic mean", "percentage" and "frequency" were used to analyze the data obtained in the study. Normality analysis of the data collection tools used in the study was performed with skewness-kurtosis and Kolmogorov-Smirnova test. As a result of the normality analysis, it was seen that the skewness and kurtosis values of the scales and their sub-dimensions were not concentrated between -1.5 and +1.5. In addition, since the significance difference level of the Kolmogorov-Smirnova test was less than $p<0.05$, it was determined that it did not show a normal distribution (Table 2 and Figure 1). Based on these results, the non-parametric Mann Whitnel U and Kruskal Wallis H tests will be used since they do not show a normal distribution. In addition, Pearson correlation analysis was used to determine the relationship between the two scales used, and regression analysis was used to determine the effect between them.

**Table 2** *Normality analyses regarding the scale and its sub-dimensions used*

| | ***Skewness*** | ***Kurtosis*** | ***Kolmogorov-Smirnov[a]*** | | | ***Shapiro-Wilk*** | | |
|---|---|---|---|---|---|---|---|---|
| | | | ***Statistic*** | ***df*** | ***Sig.*** | ***Statistic*** | ***df*** | ***Sig.*** |
| Planning | -1,419 | 2,225 | ,170 | 355 | ,000 | ,852 | 355 | ,000 |
| Implementation | -1,406 | 2,222 | ,169 | 355 | ,000 | ,856 | 355 | ,000 |
| Evaluation | -1,446 | 2,259 | ,187 | 355 | ,000 | ,836 | 355 | ,000 |
| **Differentiated instruction self-efficacy scale** | -1,442 | 2,344 | ,169 | 355 | ,000 | ,853 | 355 | ,000 |
| Establishing student participation | -1,682 | ,675 | ,175 | 355 | ,000 | ,943 | 355 | ,000 |
| Using instructional strategies | -1,678 | ,467 | ,167 | 355 | ,000 | ,937 | 355 | ,000 |
| **Classroom management** | -1,651 | ,170 | ,189 | 355 | ,000 | ,939 | 355 | ,000 |
| **General self-efficacy beliefs** | -1,709 | ,520 | ,173 | 355 | ,000 | ,942 | 355 | ,000 |

**Figure 1** *Histogram diagram for normality analysis of the scale and its sub-dimensions used*




## RESULTS

### Findings Regarding Teachers' Perceptions of Differentiated Instruction Self-Efficacy and Professional Self-Efficacy

**Table 3** *Arithmetic Mean of Teachers' Perceptions of Differentiated Instruction Self-Efficacy and Professional Self-Efficacy*

| | **N** | **x** | **sd** |
|---|---|---|---|
| Planning | 355 | 4,1363 | ,86590 |
| Implementation | 355 | 4,1367 | ,85048 |
| Evaluation | 355 | 4,1803 | ,87175 |
| **Differentiated instruction self-efficacy scale** | **355** | **4,1511** | **,83956** |
| Establishing student participation | 355 | 3,9680 | ,66820 |
| Using teaching strategies | 355 | 4,0165 | ,69122 |
| Classroom management | 355 | 4,0165 | ,68229 |
| **Professional self-efficacy beliefs** | **355** | **4,0004** | **,66712** |

The mean score of the classroom teachers participating in the study for planning in differentiated instruction self-efficacy ( $\overline{x}$ = 4.13; sd:0.865); mean score of implementation self-efficacy (4.13; sd:0.850); mean score of evaluation self-efficacy ( $\overline{x}$ = 4.18; sd:0.871), mean score of differentiated instruction self-efficacy scale ( $\overline{x}$ = 4.15; sd:0.839) were found. With these results, it was concluded that the self-efficacy perceptions of the classroom teachers in all dimensions of the differentiated instruction self-efficacy scale were high.

The mean score of the classroom teachers participating in the study for ensuring student participation self-efficacy ( $\overline{x}$ = 3.96; sd:0.668); The mean score of self-efficacy in using teaching strategies (4.01; sd:0.691); the mean score of self-efficacy in classroom management ( $\overline{x}$ = 4.01; sd:0.682); the mean score of professional self-efficacy beliefs of classroom teachers ( $\overline{x}$ = 4.00; sd:0.667) were found to be ( $\overline{x}$ = 4.00; sd:0.667). With these results, it was concluded that the professional self-efficacy perceptions of classroom teachers were high in the scale and all dimensions.

**Findings Regarding Teachers' Differentiated Instruction Self-efficacy Perceptions and Teachers' Descriptive Characteristics**

**Table 4** *Mann Whitney U Test Analysis of Teachers' Differentiated Instruction Self-efficacy According to Their Gender*

| | ***Cinsiyet*** | ***N*** | ***Sort*** | ***Stop*** | ***U*** | ***z*** | ***p*** |
|---|---|---|---|---|---|---|---|
| Planing | Female | 242 | 173,18 | 41910,50 | 12507,500 | 1,305 | ,192 |
| | Male | 113 | 188,31 | 21279,50 | | | |
| | Total | 355 | | | | | |
| Implementation | Female | 242 | 170,81 | 41337,00 | 11934,000 | -1,947 | ,051 |
| | Male | 113 | 193,39 | 21853,00 | | | |
| | Total | 355 | | | | | |
| Evaluation | Female | 242 | 172,25 | 41685,00 | 12282,000 | -1,570 | ,116 |
| | Male | 113 | 190,31 | 21505,00 | | | |
| | Total | 355 | | | | | |
| Differentiated instruction self-efficacy scale | Female | 242 | 172,54 | 41755,00 | 12352,000 | -1,475 | ,140 |
| | Male | 113 | 189,69 | 21435,00 | | | |
| | Total | 355 | | | | | |

According to the Mann Whitney U test results conducted on the self-efficacy perceptions of the classroom teachers participating in the study regarding differentiated instruction, no significant difference was determined between them. (z:-1.475; p:0.140). These results have reached the conclusion that the teachers' self-efficacy perceptions in differentiated instruction are similar in terms of gender. Similarly, no statistically significant difference was determined in the classroom teachers' self-efficacy perceptions in planning, implementation and evaluation in differentiated instruction.

**Table 5** *Analysis of Teachers' Differentiated Instruction Self-efficacy According to Age Variable Kruskal Wallis H (z**2**) Test*

| | ***Age*** | ***N*** | ***Sort*** | ***Kruskal-Wallis H (z2)*** | ***df*** | ***p*** | ***Post Hoc Tamhane's T2*** |
|---|---|---|---|---|---|---|---|
| ***Planing*** | [a]22-25 | 92 | 132,80 | 18,352 | 3 | ,000 | b>a |
| | [b]26-30 | 131 | 185,34 | | | | c>a |
| | [c]31-40 | 87 | 179,05 | | | | d>a |
| | [d]41-50 | 28 | 186,32 | | | | |
| | Total | 338 | | | | | |
| ***Implementation*** | [a]22-25 | 92 | 131,26 | 20,165 | 3 | ,000 | b>a |
| | [b]26-30 | 131 | 185,73 | | | | c>a |
| | [c]31-40 | 87 | 178,39 | | | | d>a |
| | [d]41-50 | 28 | 191,64 | | | | |
| | Total | 338 | | | | | |
| ***Evaluation*** | [a]22-25 | 92 | 130,32 | 21,080 | 3 | ,000 | b>a |
| | [b]26-30 | 131 | 183,73 | | | | c>a |
| | [c]31-40 | 87 | 186,37 | | | | d>a |
| | [d]41-50 | 28 | 179,25 | | | | |
| | Total | 338 | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ***Differentiated instruction self-efficacy scale*** | [a]22-25 | 92 | 131,15 | 19,667 | 3 | ,000 | b>a |
| | [b]26-30 | 131 | 184,01 | | | | c>a |
| | [c]31-40 | 87 | 183,43 | | | | d>a |
| | [d]41-50 | 28 | 184,34 | | | | |
| | Total | 338 | | | | | |

According to the result of the Kruskal Wallis H test conducted according to the age variable of the self-efficacy perceptions of the classroom teachers who participated in the research in differentiated instruction, a significant difference was determined between them (***z2***:19.667; p:0.000). The self-efficacy perceptions of the classroom teachers in differentiated instruction were found to be 26-30 age group (Sort: 184.01), 31-40 age group (Sort: 183.43), 41-50 age group (Sort: 184.34) and 22-25 age group (Sort: 131.15). According to the result of the Post Hoc Tamhane's T2 test conducted to determine the difference between the groups, it was found that the self-efficacy perceptions of the 26-30 age group teachers in differentiated instruction were at a higher level than the 22-25 age group teachers. Similarly, a statistically significant difference was determined in the perceptions of classroom teachers' self-efficacy in planning, implementing and evaluating differentiated instruction, and it was found that the 26-30 age group teachers' perceived self-efficacy in differentiated instruction was higher than the 22-25 age group teachers.

**Table 6**

*Kruskal Wallis H (**z2**) Test Analysis of Teachers' Self-Efficacy in Differentiated Instruction According to the Education Level Variable*

| | ***Education Level*** | ***N*** | ***Sort*** | ***Kruskal-Wallis H (z2)*** | ***df*** | ***p*** | ***Post Hoc Tamhane's T2*** |
|---|---|---|---|---|---|---|---|
| *Planing* | [a]University (Undergraduate) | 267 | 164,76 | 18,945 | 2 | ,000 | b>a |
| | [b]Master's Degree | 85 | 216,47 | | | | c>a |
| | [c]Doctorate | 3 | 266,67 | | | | |
| | Total | 355 | | | | | |
| *Implementation* | [a]University (Undergraduate) | 267 | 163,95 | 20,831 | 2 | ,000 | b>a |
| | [b]Master's Degree | 85 | 219,54 | | | | c>a |
| | [c]Doctorate | 3 | 251,67 | | | | |
| | Total | 355 | | | | | |
| *Evaluation* | [a]University (Undergraduate) | 267 | 168,38 | 10,152 | 2 | ,006 | b>a |
| | [b]Master's Degree | 85 | 205,96 | | | | c>a |
| | [c]Doctorate | 3 | 242,00 | | | | |
| | Total | 355 | | | | | |
| ***Differentiated instruction self-efficacy scale*** | [a]University (Undergraduate) | 267 | 164,85 | 18,476 | 2 | ,000 | b>a |
| | [b]Master's Degree | 85 | 216,35 | | | | c>a |
| | [c]Doctorate | 3 | 262,00 | | | | |
| | Total | 355 | | | | | |

The Mann Whitney U test results showed that the self-efficacy perceptions of the classroom teachers participating in the study regarding differentiated instruction were significantly different from each other according to the education level variable (U: 8212.000; p:0.000). The self-efficacy perceptions of the classroom teachers regarding differentiated instruction were found to be the undergraduate group (Sort: 164.85) and the graduate group (Sort: 217.91). Accordingly, it was determined that the teachers with a graduate level of education had higher self-efficacy perceptions in differentiated instruction than the teachers without a bachelor's degree. Similarly, a statistically significant difference was also found in the classroom teachers' perceptions of planning, implementation and evaluation self-efficacy in differentiated instruction and it was determined that the teachers with a graduate level of education had higher professional self-efficacy perceptions than the teachers without a bachelor's degree.

**Table 7** *Kruskal Wallis H (**z2**) Test Analysis of Teachers' Self-Efficacy in Differentiated Instruction According to the Variable of Receiving Differentiated Instruction*

| | ***Whether to Receive Differentiated Education or Not*** | ***N*** | ***Sort*** | ***Stop*** | ***U*** | ***z*** | ***p*** |
|---|---|---|---|---|---|---|---|
| *Planning* | Yes | 94 | 215,73 | 20279,00 | 8720,000 | -4,193 | ,000 |
| | No | 261 | 164,41 | 42911,00 | | | |
| | Total | 355 | | | | | |
| *Implementation* | Yes | 94 | 219,35 | 20618,50 | 8380,500 | -4,595 | ,000 |
| | No | 261 | 163,11 | 42571,50 | | | |
| | Total | 355 | | | | | |
| *Evaluation* | Yes | 94 | 208,84 | 19631,00 | 9368,000 | -3,455 | ,001 |
| | No | 261 | 166,89 | 43559,00 | | | |
| | Total | 355 | | | | | |
| ***Differentiated instruction self-efficacy scale*** | Yes | 94 | 214,09 | 20124,00 | 8875,000 | -3,998 | ,000 |
| | No | 261 | 165,00 | 43066,00 | | | |
| | Total | 355 | | | | | |

According to the Mann Whitney U test result, a significant difference was determined according to the self-efficacy perceptions of the classroom teachers participating in the study regarding differentiated instruction, according to whether they received training in differentiated instruction or not (**z:** -3.998; p: 0.000). In the self-efficacy perceptions of the classroom teachers, it was found that the group of teachers who received training in differentiated instruction (Sort: 214.09) and the group of teachers who did not receive training (Sort: 165.00) had higher levels of differentiated instruction self-efficacy perceptions. Similarly, a statistically significant difference was determined in the perceptions of classroom teachers regarding planning, implementation and evaluation self-efficacy in differentiated instruction, and it was found that the teachers who received training in differentiated instruction had higher levels of self-efficacy perceptions.

**Table 8** *Kruskal Wallis H (z**2**) Test Analysis of Teachers' Self-Efficacy in Differentiated Instruction According to Seniority Variable*

| | ***Kıdem*** | ***N*** | ***Sort*** | ***Kruskal-Wallis H (z2)*** | ***df*** | ***p*** | ***Post Hoc Tamhane's T2*** |
|---|---|---|---|---|---|---|---|
| *Planning* | [a]0-5 age | 177 | 158,46 | 15,080 | 3 | ,002 | b>a |
| | [b]6-11 age | 114 | 189,22 | | | | c>a |
| | [c]12-17 age | 38 | 211,25 | | | | d>a |
| | [d]18and more years | 26 | 213,21 | | | | |
| | Total | 355 | | | | | |
| *Implementation* | [a]0-5 age | 177 | 157,07 | 16,165 | 3 | ,001 | b>a |
| | [b]6-11 age | 114 | 192,52 | | | | c>a |
| | [c]12-17 age | 38 | 208,97 | | | | d>a |
| | [d]18and more years | 26 | 211,56 | | | | |
| | Total | 355 | | | | | |
| *Evaluation* | [a]0-5 age | 177 | 159,46 | 12,844 | 3 | ,005 | b>a |
| | [b]6-11 age | 114 | 190,98 | | | | c>a |
| | [c]12-17 age | 38 | 205,14 | | | | d>a |
| | [d]18and more years | 26 | 207,63 | | | | |
| | Total | 355 | | | | | |
| ***Differentiated instruction self-efficacy scale*** | [a]0-5 age | 177 | 157,51 | 15,471 | 3 | ,001 | b>a |
| | [b]6-11 age | 114 | 192,11 | | | | c>a |
| | [c]12-17 age | 38 | 211,82 | | | | d>a |
| | [d]18and more years | 26 | 206,17 | | | | |
| | Total | 355 | | | | | |

According to the result of the Kruskal Wallis H test conducted according to the seniority variable of the self-efficacy perceptions of the classroom teachers participating in the research regarding differentiated instruction, a significant difference was determined ((*z2*:15.471; p:0.001). In the self-efficacy perceptions of the classroom teachers regarding differentiated instruction, it was found that the 6-11 year group (Sort: 184.01), 12-17 year group (Sort: 211.82), 18 and

above year group (Sort: 206.17) and 0-5 year group (Sort: 157.51). According to the result of the Post Hoc Tamhane's T2 test conducted to determine the difference between the groups, it was found that the self-efficacy perceptions of teachers with more than 6 years of seniority regarding differentiated instruction were at a higher level than the teachers with 0-5 years of seniority. Similarly, a statistically significant difference was determined in the perceptions of classroom teachers' self-efficacy in planning, implementing and evaluating differentiated instruction, and it was found that teachers with more than 6 years of experience had higher levels of perceived differentiated instruction self-efficacy than teachers with 0-5 years of experience.

**Findings Regarding Teachers' Professional Self-Efficacy Perceptions and Descriptive Characteristics of Teachers**

**Table 9** *Mann Whitney U Test Analysis of Teachers' Professional Self-Efficacy According to Their Gender*

| | ***Gender*** | ***N*** | ***Sort*** | ***Stop*** | ***U*** | ***z*** | ***p*** |
|---|---|---|---|---|---|---|---|
| Engaging students | Female | 242 | 176,89 | 42808,50 | 13405,500 | -,300 | ,764 |
| | Male | 113 | 180,37 | 20381,50 | | | |
| | Total | 355 | | | | | |
| Using teaching strategies | Female | 242 | 176,02 | 42598,00 | 13195,000 | -,536 | ,592 |
| | Male | 113 | 182,23 | 20592,00 | | | |
| | Total | 355 | | | | | |
| Classroom management | Female | 242 | 175,62 | 42499,00 | 13096,000 | -,647 | ,518 |
| | Male | 113 | 183,11 | 20691,00 | | | |
| | Total | 355 | | | | | |
| ***Professional self-efficacy beliefs*** | Female | 242 | 175,80 | 42542,50 | 13139,500 | -,597 | ,551 |
| | Male | 113 | 182,72 | 20647,50 | | | |
| | Total | 355 | | | | | |

According to the Mann Whitney U test result conducted on the professional self-efficacy perceptions of the classroom teachers participating in the study, no significant difference was determined according to gender (z: -0.597; p: 0.551). These results indicate that the professional self-efficacy perceptions of the teachers are similar in terms of gender. Similarly, no statistically significant difference was determined in the perceptions of classroom teachers' self-efficacy in ensuring student participation, self-efficacy in using teaching strategies and self-efficacy in classroom management.

**Table 10** *Kruskal Wallis H (***χ***2) Test Analysis of Teachers' Professional Self-Efficacy According to Age Variable*

| | **Age** | **N** | **Sort** | ***Kruskal-Wallis H*** | ***df*** | ***p*** | ***Post Hoc Tamhane's T2*** |
|---|---|---|---|---|---|---|---|
| Engaging students | [a]22-25 | 92 | 133,09 | 18,057 | 3 | ,000 | b>a |
| | [b]26-30 | 131 | 185,40 | | | | c>a |
| | [c]31-40 | 87 | 180,63 | | | | d>a |
| | [d]41-50 | 28 | 180,14 | | | | |
| | Total | 338 | | | | | |
| Using teaching strategies | [a]22-25 | 92 | 130,88 | 20,364 | 3 | ,000 | b>a |
| | [b]26-30 | 131 | 181,48 | | | | c>a |
| | [c]31-40 | 87 | 187,74 | | | | d>a |
| | [d]41-50 | 28 | 183,70 | | | | |
| | Total | 338 | | | | | |
| Classroom management | [a]22-25 | 92 | 128,80 | 22,508 | 3 | ,000 | b>a |
| | [b]26-30 | 131 | 186,05 | | | | c>a |
| | [c]31-40 | 87 | 181,90 | | | | d>a |
| | [d]41-50 | 28 | 187,29 | | | | |
| | Total | 338 | | | | | |
| ***Professional self-efficacy beliefs*** | [a]22-25 | 92 | 129,24 | 21,829 | 3 | ,000 | b>a |
| | [b]26-30 | 131 | 185,45 | | | | c>a |
| | [c]31-40 | 87 | 184,29 | | | | d>a |
| | [d]41-50 | 28 | 181,20 | | | | |

| | | |
|---|---|---|
| | Total | 338 |

According to the result of the Kruskal Wallis H test conducted according to the age variable in the professional self-efficacy perceptions of the classroom teachers who participated in the research, it was determined that there was a significant difference between them (*z2*:21.829; p:0.000). In the professional self-efficacy perceptions of the classroom teachers, it was found that the 26-30 age group (Sort: 185.45), 31-40 age group (Sort: 184.29), 41 and over age group (Sort: 181.20) and 22-25 age group (Sort: 129.24). According to the result of the Post Hoc Tamhane's T2 test conducted to determine the difference between the groups, it was found that the professional self-efficacy perceptions of the 26-30 age group teachers were at a higher level than the 22-25 age group teachers. Similarly, it was determined that there was a statistically significant difference in the perceptions of classroom teachers' self-efficacy in ensuring student participation, self-efficacy in using teaching strategies and self-efficacy in classroom management, and it was found that the professional self-efficacy perceptions of teachers in the 26-30 age group were higher than those in the 22-25 age group.

**Table 11** *Kruskal Wallis H (z2) Test Analysis of Teachers' Professional Self-Efficacy According to the Education Level Variable*

| | ***Education Level*** | ***N*** | ***Sort*** | ***Kruskal-Wallis H*** | ***df*** | ***p*** | ***Post Hoc Tamhane's T2*** |
|---|---|---|---|---|---|---|---|
| ***Engaging students*** | [a]University (Undergraduate) | 267 | 163,33 | 23,274 | 2 | ,000 | b>a |
| | [b]Master's Degree | 85 | 220,66 | | | | c>a |
| | [c]Doctorate | 3 | 275,17 | | | | |
| | Total | 355 | | | | | |
| ***Using teaching strategies*** | [a]University (Undergraduate) | 267 | 164,06 | 20,921 | 2 | ,000 | b>a |
| | [b]Master's Degree | 85 | 218,62 | | | | c>a |
| | [c]Doctorate | 3 | 267,33 | | | | |
| | Total | 355 | | | | | |
| ***Classroom management*** | [a]University (Undergraduate) | 267 | 165,48 | 17,414 | 2 | ,000 | b>a |
| | [b]Master's Degree | 85 | 213,88 | | | | c>a |
| | [c]Doctorate | 3 | 275,50 | | | | |
| | Total | 355 | | | | | |
| ***Professional self-efficacy beliefs*** | [a]University (Undergraduate) | 267 | 163,35 | 23,027 | 2 | ,000 | b>a |
| | [b]Master's Degree | 85 | 220,66 | | | | c>a |
| | [c]Doctorate | 3 | 272,83 | | | | |
| | Total | 355 | | | | | |

According to the Mann Whitney U test result conducted according to the level of education of the classroom teachers participating in the study, it was determined that there was a significant difference between them (U: 7837.500; p:0.000). In the professional self-efficacy perceptions of the classroom teachers, it was found that the group with a bachelor's degree (Sort: 163.35) and the group with a postgraduate degree (Sort: 222.44). According to these results, it was determined that the teachers with a postgraduate degree had a higher level of professional self-efficacy perception than the teachers with a bachelor's degree. Similarly, it was determined that there was a statistically significant difference in the perceptions of the classroom teachers' self-efficacy in ensuring student participation, self-efficacy in using teaching strategies and self-efficacy in classroom management, and it was determined that the teachers with a postgraduate degree had a higher level of professional self-efficacy perception than the teachers with a bachelor's degree..

**Table 12** *Mann Whitney U Test Analysis of Teachers' Professional Self-Efficacy According to the Variable of Receiving Differentiated Education*

| | ***Receiving Differentiated Education*** | ***N*** | ***Sort*** | ***Stop*** | ***U*** | ***z*** | ***p*** |
|---|---|---|---|---|---|---|---|
| ***Engaging students*** | Yes | 94 | 214,13 | 20128,50 | 8870,500 | -4,019 | ,000 |
| | No | 261 | 164,99 | 43061,50 | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Total | 355 | | | | | |
| | Yes | 94 | 220,81 | 20756,50 | 8242,500 | -4,764 | ,000 |
| ***Using teaching strategies*** | No | 261 | 162,58 | 42433,50 | | | |
| | Total | 355 | | | | | |
| | Yes | 94 | 216,65 | 20365,00 | 8634,000 | -4,301 | ,000 |
| ***Classroom management*** | No | 261 | 164,08 | 42825,00 | | | |
| | Total | 355 | | | | | |
| ***Professional self-efficacy beliefs*** | Yes | 94 | 220,75 | 20750,50 | 8248,500 | -4,745 | ,000 |
| | No | 261 | 162,60 | 42439,50 | | | |
| | Total | 355 | | | | | |

According to the Mann Whitney U test result conducted according to whether the professional self-efficacy perceptions of the classroom teachers participating in the research have received training on differentiated instruction or not, a significant difference was determined between them (z: -4.745; p: 0.000). In the professional self-efficacy perceptions of the classroom teachers, it was found that the group of teachers who received training on differentiated instruction (Sort: 220.75) and the group of teachers who did not receive training (Sort: 162.60) had higher professional self-efficacy perceptions. Similarly, it was determined that there was a statistically significant difference in the perceptions of classroom teachers' self-efficacy in ensuring student participation, self-efficacy in using teaching strategies and self-efficacy in classroom management and it was found that the teachers who received training on differentiated instruction had higher self-efficacy perceptions.

**Table 13** *Kruskal Wallis H (***z2***) Test Analysis of Teachers' Professional Self-Efficacy According to Seniority Variable*

| | ***Seniority*** | ***N*** | ***Sort*** | ***Kruskal-Wallis H*** | ***df*** | ***p*** | ***Post Hoc Tamhane's T2*** |
|---|---|---|---|---|---|---|---|
| ***Engaging students*** | [a]0-5 age | 177 | 161,46 | 9,815 | 3 | ,020 | b>a |
| | [b]6-11 age | 114 | 191,33 | | | | c>a |
| | [c]12-17 age | 38 | 204,34 | | | | d>a |
| | [d]18 and more years | 26 | 193,65 | | | | |
| | Total | 355 | | | | | |
| ***Using teaching strategies*** | [a]0-5 age | 177 | 161,28 | 11,119 | 3 | ,011 | b>a |
| | [b]6-11 age | 114 | 187,55 | | | | c>a |
| | [c]12-17 age | 38 | 209,03 | | | | d>a |
| | [d]18 and more years | 26 | 204,60 | | | | |
| | Total | 355 | | | | | |
| ***Classroom management*** | [a]0-5 age | 177 | 160,48 | 12,037 | 3 | ,007 | b>a |
| | [b]6-11 age | 114 | 188,47 | | | | c>a |
| | [c]12-17 age | 38 | 205,36 | | | | d>a |
| | [d]18 and more years | 26 | 211,40 | | | | |
| | Total | 355 | | | | | |
| ***Professional self-efficacy beliefs*** | [a]0-5 age | 177 | 161,08 | 10,680 | 3 | ,014 | b>a |
| | [b]6-11 age | 114 | 189,30 | | | | c>a |
| | [c]12-17 age | 38 | 205,07 | | | | d>a |
| | [d]18 and more years | 26 | 204,12 | | | | |
| | Total | 355 | | | | | |

According to the result of Kruskal Wallis H test conducted according to the seniority variable of the professional self-efficacy perceptions of the classroom teachers participating in the research, a significant difference was determined (*z2*:10.680; p:0.014). In the professional self-efficacy perceptions of the classroom teachers, it was found that the 6-11 year group (Sort: 189.30), 12-17 year group (Sort: 205.07), 18 and over year group (Sort: 204.12) and 0-5 year group (Sort: 161.08). According to the result of the Post Hoc Tamhane's T2 test conducted to determine the difference between the groups; It was found that the professional self-efficacy perceptions of teachers with more than 6 years of seniority were higher than the teachers with 0-5 years of seniority. Similarly, a statistically significant difference was determined in the perceptions of classroom teachers' self-efficacy in ensuring student participation, self-efficacy in using teaching

strategies and self-efficacy in classroom management, and it was found that the professional self-efficacy perceptions of teachers with more than 6 years of experience were higher than those with 0-5 years of experience.

**Öğretmenlerin, Farklılaştırılmış Öğretim Özyeterlik Algıları ile Mesleki Özyeterlik Algıları Arasındaki İlişkiye Dair Bulgular**

**Table 14** *Pearson Correlation Analysis Between Teachers' Self-Efficacy Perceptions for Differentiated Instruction and Their Professional Self-Efficacy Perceptions*

| | | ***Engaging students*** | ***Using teaching strategies*** | ***Classroom management*** | ***Professional self-efficacy beliefs*** |
|---|---|---|---|---|---|
| ***Planning*** | r | ,654** | ,643** | ,643** | ,659** |
| | p | ,000 | ,000 | ,000 | ,000 |
| | N | 355 | 355 | 355 | 355 |
| ***Implementation*** | r | ,660** | ,653** | ,649** | ,667** |
| | p | ,000 | ,000 | ,000 | ,000 |
| | N | 355 | 355 | 355 | 355 |
| ***Evaluation*** | r | ,673** | ,664** | ,652** | ,676** |
| | p | ,000 | ,000 | ,000 | ,000 |
| | N | 355 | 355 | 355 | 355 |
| ***Differentiated Instruction Self-Efficacy Scale*** | r | **,681**** | **,671**** | **,666**** | **,686**** |
| | p | ,000 | ,000 | ,000 | ,000 |
| | N | 355 | 355 | 355 | 355 |

**. Correlation is significant at the 0.01 level (2-tailed).

A strong positive relationship was determined between the self-efficacy perceptions of classroom teachers regarding differentiated instruction and their professional self-efficacy perceptions. (r: ,686; p:0.000)

A strong positive relationship was determined between the self-efficacy perceptions of classroom teachers regarding differentiated instruction and their self-efficacy perceptions of ensuring student participation (r: ,681; p:0.000)

A strong positive relationship was determined between the self-efficacy perceptions of classroom teachers regarding differentiated instruction and their self-efficacy perceptions of using instructional strategies (r: ,671; p:0.000).

A strong positive relationship was determined between the self-efficacy perceptions of classroom teachers regarding differentiated instruction and their self-efficacy perceptions of classroom management (r: ,666; p:0.000).

**Öğretmenlerin, Farklılaştırılmış Öğretim Özyeterlik Algılarının Mesleki Özyeterlik Algılarına Etkisine Dair Bulgular**

**Table 15** *Regression Analysis on the Effect of Teachers' Self-Efficacy Perceptions of Differentiated Instruction on Their Professional Self-Efficacy Perceptions*

| **Özet Model[b]** | | | | | |
|---|---|---|---|---|---|
| ***Model*** | ***R*** | ***$R^2$*** | ***Ad.$R^2$*** | ***Std. Error of Estimate*** | |
| | ,686[a] | ,471 | ,469 | ,61170 | |
| **ANOVA[a]** | | | | | |
| ***Model*** | ***$K_{Top}$*** | ***Df*** | ***$K_{Ort}$*** | ***F*** | ***P*** |
| Regression | 117,435 | 1 | 117,435 | 313,844 | **,000[b]** |
| Residuals | 132,086 | 353 | ,374 | | |
| Total | 249,521 | 354 | | | |
| **Factor Coefficients (Coefficients)** | | | | | |

| | *Nonstandard Coefficients* | | *Factor* | *Standard Coefficients (N)* | *Factor* | *t* | *p* |
|---|---|---|---|---|---|---|---|
| | ***B*** | ***Std. Error*** | | ***Beta*** | | | |
| (Fixed) | ,697 | ,198 | | | | 3,528 | ,000 |
| Professional self-efficacy beliefs | ,863 | ,049 | | ,686 | | 17,716 | ,000 |

a: Parameter (Constant): Differentiated Instruction Self-Efficacy Scale

b: Dependent Variable: Professional self-efficacy beliefs

According to Table 15, the perception of "Differentiated Instruction Self-Efficacy" has a statistically significant effect on teachers' "perception of professional self-efficacy". In line with this hypothesis, the simple (linear) regression (effect) analysis conducted at a significance level of 0.05 and a reliability level of 95% shows that it has a significant effect at the p:0.000 level. It can be said that the Perception of Differentiated Instruction Self-Efficacy affects teachers' perception of professional self-efficacy linearly and positively at a rate of 0.47.1 (47.1%). (R=0.686; R2=0. 47.1; Adjusted R2=0.469; F=313.84 p<0.01).

## CONCLUSION, DISCUSSION AND RECOMMENDATIONS

It was concluded that the self-efficacy perceptions of the classroom teachers participating in the study were similar in terms of gender in differentiated instruction. It was found that the self-efficacy perceptions of the classroom teachers in the 26-50 age group were higher than those in the 22-25 age group. It was determined that the self-efficacy perceptions of the teachers with a postgraduate education level were higher than those with a bachelor's degree in differentiated instruction. It was found that the teachers who received training in differentiated instruction were higher than those who did not receive training. It was found that the self-efficacy perceptions of the classroom teachers with more than 6 years of seniority in differentiated instruction were higher than those with 0-5 years of seniority. It was concluded that the professional self-efficacy perceptions of the classroom teachers participating in the study were similar in terms of gender. It was determined that the professional self-efficacy perceptions of the teachers in the 26-30 age group were higher than those in the 22-25 age group; and that the professional self-efficacy of the teachers with a postgraduate education level was higher. It was determined that the professional self-efficacy of teachers who received training on differentiated instruction was higher. It was determined that the professional self-efficacy of teachers with more than 6 years of service was significantly higher than that of teachers with 0-5 years of service.

It was determined that there was a strong positive relationship between the self-efficacy perceptions of classroom teachers regarding differentiated instruction and their professional self-efficacy perceptions, their self-efficacy perceptions in ensuring student participation, their self-efficacy perceptions in using teaching strategies, and their self-efficacy perceptions in classroom management. In addition, it can be said that the perception of "differentiated instruction self-efficacy" affects the "professional self-efficacy perception" of teachers linearly and positively at a rate of 0.47.1 (47.1%). While the average score of planning self-efficacy and the average score of implementation self-efficacy of the classroom teachers participating in the study were high and the same in differentiated instruction, the average score of evaluation self-efficacy was found to be higher, and when the entire scale was examined, a similarly high average score was encountered. According to these results, it was concluded that classroom teachers' self-efficacy perceptions were high in all dimensions of differentiated instruction. Gedik (2023), in his research examining the Differentiated Instruction Self-Efficacy Perceptions of classroom teacher candidates, found that the planning-implementation and evaluation self-efficacy average scores of the teacher candidates were high and close to each other, and determined that the general average of the scale was above the average. Mutlu et al. (2019), in their study on the development of the differentiated instruction self-efficacy scale, found that the planning-implementation and evaluation self-efficacy average scores of the teacher candidates were close to each other and high, while the general average of the scale was also above the average. Üçarkuş and Yeşilbursa, (2020) found the average self-efficacy of social studies teacher candidates for differentiated instruction to be high. According to these results, it can be said that the self-efficacy of the teacher candidates for differentiated instruction was high. Yıldız (2023) found that the average scores of planning-implementation and evaluation self-efficacy were close to each other and high, while the overall average score was also high in his study where he tried to determine the self-efficacy perceptions of Religious Culture and Moral Knowledge Teachers regarding differentiated instruction. Kozikoğlu and Bekler (2018) found that the general competences of teachers in different branches regarding differentiated instruction were at a very high level. Aşiroğlu (2016) stated in his study that preschool teacher candidates had low self-efficacy regarding differentiated instruction. Gülay's (2021) study concluded that classroom teachers did not have high self-efficacy regarding teaching practices. Bedir (2015) determined that teachers with low self-efficacy regarding differentiated instruction had difficulties in implementation self-efficacy. According to the results of all these studies, it

was concluded in the literature that teachers were not sufficient in the field of implementation regarding differentiated instruction.

It was concluded that the self-efficacy perceptions of the classroom teachers participating in the study were similar in terms of gender in differentiated instruction. Again, no significant difference was determined in the self-efficacy perceptions of planning, implementation and evaluation. These studies in the literature are studies that are not similar to our study findings. Gedik (2023) determined that males were significantly higher in all dimensions of classroom teacher candidates' self-efficacy perceptions regarding differentiated instruction. Demirkaya's (2018) doctoral study on the competencies of classroom teachers regarding differentiated instruction concluded that female teachers were more competent than male teachers. Tuzkan (2019) determined in his study that female teachers had higher self-efficacy than male teachers. Gülay (2021) found in his doctoral thesis study that female classroom teachers had higher self-efficacy in implementing differentiated instruction than male teachers. Yıldız (2023) determined in his study that male Religious Culture and Moral Knowledge teachers had higher levels of teachers' self-efficacy perceptions regarding differentiated instruction. It was also determined that male teachers had higher planning self-efficacy, while there was no significant difference in implementation and evaluation self-efficacy. Kozikoğlu and Bekler (2018) found that the gender variable was not a factor that created a difference in teachers' general competence in differentiated instruction. Bayram (2019) determined in his research that female teachers had higher implementation self-efficacy than male teachers. These studies in the literature were not similar to our study findings.

It was found that the self-efficacy perceptions of the classroom teachers participating in the study regarding differentiated instruction were higher in the 26-30 age group teachers than in the 22-25 age group teachers according to the age variable. It was also found that the 26-30 age group teachers had higher differentiated instruction self-efficacy perceptions than in the 22-25 age group teachers in terms of planning, implementation and evaluation self-efficacy perceptions of classroom teachers regarding differentiated instruction. Yıldız (2023) determined in his study that there is no significant relationship between teachers' self-efficacy perceptions regarding differentiated instruction according to their age variable.

According to the education level variable of the classroom teachers participating in the study, it was determined that teachers with a postgraduate education had higher self-efficacy perceptions regarding differentiated instruction than teachers with a bachelor's degree. It was also determined that teachers with a postgraduate education had higher professional self-efficacy perceptions than teachers with a bachelor's degree in terms of classroom teachers' self-efficacy perceptions regarding planning, implementation and evaluation of differentiated instruction. In the literature, it was determined that results supporting this finding were obtained in the studies of Kozikoğlu and Bekler (2018) and Yıldız (2023).

The self-efficacy perceptions of the classroom teachers participating in the study regarding differentiated instruction; It was found that teachers who received training on differentiated instruction had higher self-efficacy perceptions than teachers who did not receive training, depending on whether they received training on differentiated instruction. Similarly, it was found that teachers who received training on differentiated instruction had higher levels of self-efficacy perceptions in planning, implementing and evaluating differentiated instruction. There are studies in the literature that provide similar results regarding this finding (Kozikoğlu and Bekler, 2018; Yıldız 2023).

The perception of self-efficacy of the classroom teachers participating in the study regarding differentiated instruction was found to be higher in teachers with more than 6 years of seniority than in teachers with 0-5 years of seniority. It was also found that in terms of classroom teachers' perception of planning, implementation and evaluation of differentiated instruction, the perception of self-efficacy of teachers with more than 6 years of seniority regarding differentiated instruction was higher than in teachers with 0-5 years of seniority. In the study of Kozikoğlu and Bekler (2018), it was revealed that the perception of self-efficacy of teachers with more than 6 years of service regarding differentiated instruction was higher in terms of their self-efficacy levels. In addition, no significant difference could be determined in terms of application self-efficacy according to professional experience, and Yıldız (2023) found that there was no significant difference between the perception of self-efficacy of teachers regarding differentiated instruction according to the seniority variable. Casey (2011) determined in his study with teachers who were new to the profession that their classroom management skills regarding the application of the differentiated instruction approach were low, their application skills remained in practice and they did not have the opportunity to apply them. While the average scores of the classroom teachers participating in the study were found to be high and close to each other in terms of student participation self-efficacy, teaching strategies use self-efficacy and classroom management self-efficacy, the average score of the classroom teachers' professional self-efficacy perceptions in general was also found to be high. With these results, it was concluded that the classroom teachers' self-efficacy perceptions were high in all dimensions of the professional self-efficacy perception scale. Erdoğan and Üredi (2023) determined that the arithmetic mean of the classroom teachers'

self-efficacy perception scores was high. Similarly, in the literature reviews; Çetinkaya (2019) determined that the general self-efficacy perceptions of preschool teachers, and the self-efficacy perceptions in the communication-planning-learning environments and classroom management sub-dimensions were significantly high in his master's study. In the same preschool education institutions, Daştan (2016) determined that teachers' communication skills-planning-learning environments and classroom management self-efficacy were very high in his research. In his study where secondary school teachers were sampled, Emre (2017) found that teachers' classroom management and general self-efficacy perceptions were sufficient; Toy (2015) and Korkut (2009) found that their general self-efficacy perceptions were quite sufficient as a result of their study on classroom teachers.

It was concluded that the professional self-efficacy perceptions of the classroom teachers participating in the study were similar according to gender. No significant difference was determined in the classroom teachers' perceptions of student participation self-efficacy, teaching strategies self-efficacy and classroom management self-efficacy. Kaçar and Beycioğlu (2014) determined that the self-efficacy perceptions of classroom teachers did not show a significant difference according to the gender variable. Erdoğan and Üredi (2023) determined in their study that self-efficacy perceptions did not create a significant difference in the context of gender. Özkurt (2017) found in their study that gender was not a variable that created a difference in teachers' self-efficacy perceptions. Among the studies in which similar findings were obtained, the studies of Gençtürk (2008), Zararsız (2012), and Turcan (2011) also support our findings by showing that teacher self-efficacy did not create a difference according to gender and that self-efficacy levels were at similar levels. In the evaluation of these results, Denizoğlu (2008) argues that the reason for this is the change in the role of women in social life and that their being in education life similar to men reduces the differences. Unlike the study findings, Toy (2015) found that women's teacher self-efficacy was significantly high in his study. He states that the teaching profession is more suitable for women than other professions and that it is perceived as a more suitable profession due to more flexible working conditions. Erdoğan and Üredi (2023) reported in their study that the self-efficacy perceptions of classroom teachers did not create a significant difference in terms of variables such as gender, marital status, seniority, age and type of school graduated from.

According to the age variable of the professional self-efficacy perceptions of the classroom teachers participating in the study; It was found that the professional self-efficacy perceptions of teachers in the 26-30 age group were higher than those in the 22-25 age group. In terms of classroom teachers' perceptions of self-efficacy in ensuring student participation, self-efficacy in using teaching strategies and self-efficacy in classroom management, it was found that the professional self-efficacy perceptions of teachers in the 26-30 age group were higher than those in the 22-25 age group. When the literature was examined, it was found that among the studies supporting our study findings, Altunbaş (2011); in his study, it was concluded that the general self-efficacy perceptions of classroom teachers in the 31-40 age group were lower than those in the 41-year-old and above group and that the self-efficacy of young teachers was not at a sufficient level. Daştan (2016) determined in his study that the self-efficacy perception developed with age and was higher than that of young teachers. Koç (2015) found that the self-efficacy perceptions of preschool teachers in the 30-year-old and above group were higher than those in the 19-29 age group. Among the studies in the literature that are not similar to our study findings, Liman and Oral Paksoy (2020) reported that there was no significant difference in preschool teachers' self-efficacy perceptions according to their ages. Erdoğan and Üredi (2023) and Konan (2018) reported that self-efficacy was not related to age in their studies. Çetinkaya (2019) reported that there was no significant difference between preschool teachers' classroom management, planning, and learning self-efficacy according to their age groups. In addition, in the literature review, Burhan (2015) determined that there was a positive relationship between the age of teachers working in kindergartens and their communication self-efficacy, but when it came to classroom management and general self-efficacy perceptions, the age factor was not an effective factor. When the professional self-efficacy perceptions of the classroom teachers participating in the study were examined according to their level of education, it was determined that the professional self-efficacy of teachers with a postgraduate education level was higher. Similarly, it was determined that teachers with a postgraduate education had higher professional self-efficacy perceptions in “ensuring student participation” self-efficacy, “using teaching strategies” self-efficacy and “classroom management” self-efficacy. Among the studies in the literature that differ from our study results, Liman and Oral Paksoy (2020) determined that the self-efficacy perceptions of preschool teachers did not reveal a significant difference according to the level of education. In addition, Çetinkaya (2019) determined that preschool teachers with an associate degree had higher self-efficacy perceptions than teachers with a bachelor's degree. Koç (2015) determined that preschool teachers with an associate degree had higher self-efficacy perceptions regarding activity. Öztürk (2014) found that the self-efficacy perceptions of teachers with an associate degree were higher than teachers with a bachelor's degree and a master's degree.

In the study, it was determined that the professional self-efficacy perceptions of the classroom teachers who participated in the study were higher in the case of receiving training on differentiated instruction. It was also found that the self-

efficacy perceptions of the teachers who received training were higher in the perceptions of "Ensuring student participation" self-efficacy, "Using teaching strategies" self-efficacy and "Classroom management" self-efficacy of the classroom teachers. When the literature was examined, Say (2005) stated in his study that the professional training courses taken over the years could positively affect the perception of self-efficacy. However, according to the findings of their study, Liman and Oral Paksoy (2020) determined that the professional development training of the teachers did not create a significant difference in their self-efficacy perceptions. It was determined that the professional self-efficacy of the classroom teachers who participated in the study was significantly higher in the teachers who had more than 6 years of service compared to the teachers who had 0-5 years of service. It was found that the self-efficacy of classroom teachers in "ensuring student participation", "using teaching strategies" and "classroom management" was higher in teachers with more than 6 years of service than in teachers with 0-5 years of service. In the literature review, one of the studies supporting my findings was Altunbaş (2011), who found that teachers with 11-20 years of service had higher self-efficacy than in teachers with 21 years of service and above. Kaçar and Beycioğlu (2014) found that the self-efficacy perceptions of classroom teachers with 6-10 years of professional service were significantly higher than in teachers with 22 years of professional service and above. Koç (2015) found that professional experience positively affected self-efficacy perceptions and that there was a significant relationship between them. Emre (2017) reported in his study that teachers with 21 years of service and above had higher professional self-efficacy perceptions. Şenol (2012) also found that kindergarten teachers with 16 years or more of professional experience had higher self-efficacy than teachers with less professional experience. Unlike our study results, Kasap (2012) found that young teachers had higher self-efficacy perceptions. Erdoğan and Üredi (2023) did not find a significant difference in the self-efficacy perceptions of classroom teachers according to the variable of years of service. Özkurt (2017) also concluded that professional seniority was not a determining factor in teacher self-efficacy perception. It was determined that there was a strong positive relationship between classroom teachers' self-efficacy perceptions regarding differentiated instruction, their professional self-efficacy perceptions, their self-efficacy perceptions regarding student participation, their self-efficacy perceptions regarding using teaching strategies, and their self-efficacy perceptions regarding classroom management. In addition, it can be said that the perception of "Differentiated Teaching Self-Efficacy" affects teachers' "Perception of Professional Self-Efficacy" linearly and positively at a rate of 0.47.1 (47.1%). Yeşilyurt (2013) determined in his research that there is a positive relationship between teacher self-efficacy and student participation. No other study has been found in the literature regarding this finding of our study.

## SUGGESTIONS

The following suggestions were developed based on the results of this study, in which the self-efficacy perceptions of classroom teachers regarding differentiated instruction and their professional self-efficacy perceptions were examined according to various variables:

1) Although it was observed that classroom teachers' perceptions of differentiated instruction and professional self-efficacy and their participation were generally at a high level, it is beneficial to organize seminars and in-service training courses for young and newly appointed teachers.

2) Considering that classroom teachers' perceptions of differentiated instruction and professional self-efficacy show a significant difference in terms of age, seniority and education level factors, environments or online teacher groups can be created where especially postgraduate level teachers with high experience and professional service years can mentor other colleagues and share their experiences.

3) Since it was observed that self-efficacy perceptions were at a high level in all three sub-dimensions of the differentiated instruction self-efficacy scale, namely planning-implementation and evaluation, it may be beneficial for classroom teachers to shape their lesson plans in detail according to the three sub-dimensions during the lesson process.

4) When the teacher self-efficacy perception scale is examined in terms of ensuring student participation, using teaching strategies and classroom management, since it is seen that the sub-dimension of ensuring student participation is slightly lower than the other two sub-dimensions, research can be conducted on what can be done to ensure student participation, and discussion environments can be created with classroom teachers to ensure exchange of ideas.

5) When the differentiated teaching self-efficacy of classroom teachers is examined according to the age variable, it has been revealed that there is a significant difference between them. When this difference is associated with the sub-dimensions, it is seen that the lowest self-efficacy is in the 22-25 age group and the evaluation sub-dimension. In order to address this situation, opportunities should be provided to increase the self-efficacy of young teachers, especially to support their self-efficacy in the evaluation dimension. It can be thought that creating a pool of alternatives that include different learning styles that differentiated teaching contains will be beneficial.

6) Since it has been found that the differentiated teaching self-efficacy perceptions of teachers who receive training on differentiated teaching are at a higher level than those who do not; In the education courses and in-service trainings given in the faculties of education where class teachers are trained, content and practices related to differentiated teaching can be given more space, teachers can be provided with more and more accurate information about differentiated teaching, and their active use can be encouraged.
7) In particular, young and novice teachers can be supported in easily obtaining or developing appropriate materials, lesson plans, activities and assessment tools to address different student levels and learning styles.
8) Teachers can be provided with an environment to jointly prepare individualized learning plans according to the interests and needs of their students and thus develop their self-efficacy.
9) Digital resources adapted to the individual learning needs of students can be provided using educational technologies.
10) Teachers can be provided with tools and surveys to evaluate their own teaching practices, thus strengthening their self-efficacy beliefs.
11) A supportive environment can be created by the school administration for teachers to try and implement innovative teaching methods.
12) Since differentiated instruction is based on the principle of getting to know the student, it can be considered that teacher-student and teacher-parent collaboration by the school administration regarding getting to know the student will contribute to getting to know the student and will be beneficial in developing teaching strategies for the student.

13) The physical environment and equipment, tools-equipment, material and resource deficiencies in schools regarding differentiated instruction can be determined by the MEM and school administration and teacher-school collaboration can be provided regarding elimination of deficiencies.

14) Academic studies aimed at increasing the differentiated instruction self-efficacy perceptions and professional self-efficacy perceptions of especially young and newly assigned classroom teachers can be beneficial.
15) Since this study, which examines the self-efficacy perceptions and professional self-efficacy perceptions of classroom teachers regarding differentiated instruction, is limited to classroom teachers working in the province of Muş, it can be beneficial to apply it in different provinces.
16) The relationship between the self-efficacy perceptions of classroom teachers regarding differentiated instruction and their professional self-efficacy perceptions was examined using the quantitative research method. Researchers have used qualitative or.

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