

# Perceptions of Primary School Teachers Regarding the Implementation of Differentiated Instruction to Students with Learning Difficulties

Anastasia Papanthymou<sup>1,\*</sup> & Maria Darra<sup>1</sup>

<sup>1</sup>Department of Primary Education, University of the Aegean, Greece

\*Correspondence: Department of Primary Education, University of the Aegean, Greece. E-mail: pred17005@aegean.gr

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## Abstract

The main purpose of this paper is to investigate the perceptions of primary school teachers of all specialties in the Dodecanese (Greece) regarding the implementation of differentiated instructional strategies to support students with learning difficulties in the classroom. The research was conducted through quantitative approach using an anonymous electronic questionnaire on a sample of 174 primary school teachers of all specialties in the Dodecanese, during the period from February 13, 2021 to April 28, 2021. As for «content differentiation», the strategy most frequently used by teachers is the selection of the most crucial assignments for underachieving students with learning difficulties. As for «process differentiation», the strategy most often used is to adjust the pace of instruction to each student's needs with learning difficulties. Regarding the «product differentiation», the strategy most used by teachers is to offer extra support to students with learning difficulties, who have difficulty finishing activities. In terms of «assessment differentiation», the strategy most frequently used is to give more time to students with learning difficulties to complete tasks or exams, while, in terms of «learning environment», the strategy most commonly used by teachers is to make a conscious effort to ensure that students engage consistently and fairly in class.

**Keywords:** differentiated instruction, learning difficulties, primary education

## 1. Introduction

Teaching in mixed ability classes has never been easy and the inventing ways to address students' individual differences and learning difficulties is a major challenge for all teachers. The instructional practices needed for inclusion are easier to identify than to implement (Yuen, Westwood, & Wong, 2005). With regard to learning difficulties which are the largest category of special education needs (Panteliadou & Botsas, 2007), differentiated instruction is suggested as an effective approach, because learning difficulties are one of the most fundamental reasons for affecting students' academic performance, but also make it difficult for them to integrate socially into the school context (Bellou, 2019).

Differentiated instruction adapts instruction to meet the individual needs of all students (Tomlinson, 2005; Cannon, 2017) and can address to the needs of all students, because it is a creative and enjoyable process for both, teacher and student. Besides, its implementation has been found to have positive results in terms of improving student performance (Tsotsou, 2019). However, differentiated instruction does not seem to be frequently used (Tomlinson, 2003; Kiley, 2011) as it requires more preparation time and its implementation in the classroom is quite time-consuming (Papadakis & Ziskos, 2015).

Specific findings emerge from an examination of the relevant research literature on the implementation of differentiated instruction for students with learning difficulties. From the study of the literature, it appears that in the field of differentiated instruction, the main issues studied are attitudes (Rontou, 2012; Mavroudi, 2016; Tatioka, 2016; Mengistie, 2020), opinions, perceptions (Roiha, 2014; Tatioka, 2016; Fotopoulou, 2017; Filippatou & Vendista, 2017; Davis, 2020; Moutlas, 2021) and teachers' intentions (Argyropoulou, 2018) regarding the implementation of differentiated instruction.

In addition, a relatively small number of studies examined the frequency of use of differentiated instructional

practices (Siam & Al-Natour, 2016; Psarianou, 2019; Papadopoulou, 2019; Tadesse, 2020), while other studies examined the degree of understanding of differentiated instructional practices compared to degree of their implementation (Ismajli & Imami-Morina, 2018; Bellou, 2019; Mengistie, 2020; Yetnayet, 2020; Moutlas, 2021), the factors that prevent the implementation of differentiated instruction (Roiha, 2014; Siam & Al-Natour, 2016; Mavroudi, 2016; Psarianou, 2019; Bellou, 2019; Papadopoulou, 2019; Mengistie, 2020; Yetnayet, 2020; Moutlas, 2021), the factors that reinforce them (Valianti, 2015; Fotopoulou, 2017; Argyropoulou, 2018) and the impact of differentiated instruction on students (Valianti, 2015; Papadopoulou, 2019). Yet, research was identified that explores the understanding of the term differentiated instruction (Strogilos et al., 2017) and teachers' perceptions of educational software designed for differentiated instruction (Cannon, 2017).

In terms of demographic characteristics, there are differences in the implementation of differentiated instructional strategies as a function of gender, specialty and school level (Filippatou & Vendista, 2017), age (Bellou, 2019), education (Bellou, 2019; Tadesse, 2020; Yetnayet, 2020), teaching experience (Bellou, 2019; Tadesse, 2020; Yetnayet, 2020), subject matter (Yetnayet, 2020), training on differentiated instruction or special education (Bellou, 2019) and school type, private or public (Siam & Al-Natour, 2016).

Differences are also found in teachers' knowledge of differentiated instructional practices as a function of age (Bellou, 2019), teaching experience (Yetnayet, 2020) and qualifications (Bellou, 2019; Yetnayet, 2020). Furthermore, positive correlations are found between understanding of differentiated instruction and education, teaching experience and age, while negative correlations are found between use of differentiated instruction and age and teaching experience (Moutlas, 2021).

Finally, educational levels in which the issues of differentiated instruction have been studied are, mainly, primary education (Roiha, 2014; Valianti, 2015; Mavroudi, 2016; Siam & Al-Natour, 2016; Cannon, 2017; Ismajli & Imami-Morina, 2018; Dinaki, 2019; Bellou, 2019; Papadopoulou, 2019; Davis, 2020; Mengistie, 2020; Tadesse, 2020; Yetnayet, 2020; Moutlas, 2021), followed by secondary education (Rontou, 2012; Filippatou & Vendista, 2017; Argyropoulou, 2018), intercultural primary education (Fotopoulou, 2017) and intercultural primary and secondary education (Tatsioka, 2016).

Although the need to use differentiated instructional strategies for students with learning difficulties will likely continue to increase as more students with learning difficulties are placed in inclusive settings (Gibson, 2013), studies on the implementation of differentiated instruction in the classroom and the frequency of its use highlight that these strategies are not so used as frequently (Siam & Al-Natour, 2016; Filippatou & Vendista, 2017; Ismajli & Imami-Morina, 2018; Mengistie, 2020; Yetnayet, 2020).

Moreover, it should be noted that the experiences of teachers who differentiate their instruction and their perceptions of differentiation have not been adequately studied, so further research in this area is urgently needed (Kovtuh, 2017).

In particular, when examining the Greek literature on the implementation of differentiated instructional strategies for students with learning difficulties in elementary school and the frequency of their use, a relatively small number of studies, especially in recent years, were found with related topics. The aim of this paper is to investigate the perceptions of primary school teachers of all specialties in the Dodecanese region in Greece regarding the implementation of differentiated instructional strategies to support students with learning difficulties in the classroom.

## 2. Theoretical Framework

The presence of students with learning difficulties in a general classroom without providing them with additional help or adjusting the curriculum compromises the quality of instruction for those students. In this case the general classroom teacher has a duty to teach all students. In order for students with learning difficulties to benefit from their instruction in the general classroom, instruction should be adapted to meet their needs (Kotsifaki, 2011), and currently the most popular approach including students with learning difficulties in the general curriculum is differentiation (Yuen et al., 2005).

Differentiated instruction and curriculum adaptations address the content of the curriculum, the instructional strategies and methods as well as the learning product, or in other words, the learning outcome that is assessed based on student performance (Tzivinikou, 2015, 112).

Some challenges faced by students with learning difficulties can be addressed by making appropriate instructional

accommodations. An accommodation is a change in the regular way students learn, complete assignments, or participate in class. They reduce or eliminate the effects of a learning difficulty by giving students more and equal opportunities to succeed. There are three types of accommodations: a) accommodations that affect the classroom and physical environment, b) accommodations that affect instruction, such as alternative reading materials, and c) accommodations that affect assessment, such as oral testing or providing additional time to complete a test (The Alberta Teachers' Association, 2002).

In addition, the goal of curriculum in general education schools is provide access to the curriculum for students with learning difficulties. Moreover, the curriculum should appropriately accommodate individual differences. One way to achieve this is to adapt and modify the content of the curriculum so that students with learning difficulties can follow it. Therefore, the objectives for the students in question should be similar to those for the rest of the students and only the level of difficulty and the method of approach can be differentiated. Moreover, the curriculum can be adapted at different levels (course content, adaptation of teaching strategies, etc.), to create an appropriate educational environment for these students (Tzouriadou, 2011).

Specifically, Scott et al. (1998, as cited in Kotsifaki, 2011) suggest eight categories of curriculum adaptation: 1) adaptation of instruction, tasks, and behavior, 2) adaptation of curriculum and instructional materials and finally, 3) teaching of learning skills, division into learning groups, and assessment.

Based on the above, it seems that adaptations and differentiated instruction have a common framework and that is the changes that can be made to the curriculum to make it accessible to more students. The only difference is that adaptations have their origins in special education, while differentiated instruction has its origins in general education. Essentially, the term "curriculum adaptations" is considered an umbrella term that includes differentiation (Tzivnikou, 2015, 113).

Also, teachers seem to increasingly recognize the contribution of implementing effective differentiation to meet students' needs (Taylor, 2017). On the other hand, Kovtuh (2017) highlights that teachers are reluctant to implement differentiated instructions and there are few teachers who can meet students' learning needs because they have limited understanding of differentiation and are not adequately trained on differentiated instruction. Besides, there are teachers who have a positive attitude towards the application of differentiated instruction and seem to have adopted several techniques of differentiated instruction, but these techniques do not require special preparation time, such as flexible grouping (Mavroudi, 2016).

### **3. Research**

#### *3.1 Purpose and Research Questions*

The main purpose of this paper is to investigate the perceptions of primary school teachers of all specialties in the Dodecanese regarding:

- a. teachers' frequency of use of suggested differentiated instructional strategies to support students with learning difficulties in their classroom,
- b. relationship between the frequency of implementing of suggested differentiated instructional strategies to support students with learning difficulties in their class and their individual characteristics.

This paper attempts to answer the following research questions:

1<sup>st</sup>: How often do teachers use suggested differentiated instructional strategies to support students with learning difficulties in their class?

2<sup>nd</sup>: Do individual characteristics affect teachers' frequency of use suggested differentiated instructional strategies to support students with learning difficulties in their class?

#### *3.2 Method-Sample*

The sample of the study consisted of 174 primary school teachers. Table 1 presents the number of primary school teachers in the Dodecanese based on the records of the Directorate of Primary Education of the Dodecanese. Kindergarten teachers and special education teachers are not included in the table because they are not part of the population from which our sample was selected.

**Table 1.** Table of Primary School Teachers of Dodecanese

Code of Specialty	Main specialty	Total
PE05	French teachers	17
PE06	English teachers	100
PE07	German teachers	20
PE08	Art teachers	44
PE11	Physical Education teachers	108
PE70	Teachers	1.022
PE79.01	Music teachers	42
PE86	Computer teachers	45
PE91.01	Theater teachers	28
PE91.01	Drama teachers	3
Total of all specialties		1.412

Approximately 12.3% of the total number of primary school teachers of the Dodecanese are used for this study. Specifically, about 15.4% of teachers, about 8% of English teachers, about 13.3% of computer teachers, about 3.8% of drama teachers, approximately 0.9% of physical education teachers, and about 2.3% of art teachers responded.

The survey is quantitative and an anonymous electronic questionnaire was used. Analytically, a pilot survey was conducted from Jan. 25 to Feb. 1, 2021, in which seven teachers from different specialties participated to ensure that the questionnaire was clear and understandable, and then the electronic distribution of the questionnaire to schools via email began. In addition, the questionnaire was also posted on social media sites of primary school teachers. The survey was conducted from February 13, 2021 to April 28, 2021.

The questionnaire consisted of two groups of variables: The first group of variables included the demographic characteristics of the respondents, that is the independent variables. In particular, questions with two or more alternative answers and an open-ended question with a short answer were used.

The second group of variables consisted of a four-point Likert scale (1=Never, 2=Sometimes, 3=Frequently, 4=Always), and measured the frequency of implementating of certain suggested differentiated instructional strategies related to content, process, product, assessment and learning environment. The third group of variables of Yetnayet's (2020) questionnaire, which consists of 25 Likert-scale questions was used.

The validity and reliability of Yetnayet's (2020) questionnaire were tested. Specifically, the Cronbach's alpha value for the questionnaire items related to the content is 0.871, for the items related to the process is 0.855, for the items related to the product is 0.790, for the items related to the assessment is 0.729 and finally, for the items related to the learning environment is 0.913. All values are considered reliable because they are above 0.70.

Furthermore, the groups of variables of Yetnayet's (2020) questionnaire were translated into Greek by the researchers and then given to an English teacher who make all the necessary corrections and improvements, and a back translation was done. Finally, all the necessary adjustments were made to be used in this research.

Data were collected using a questionnaire distributed through Google Forms. The responses to the questionnaire were processed using Microsoft Excel and IBM SPSS Statistics 20, performing descriptive and inductive statistics.

More specifically, we applied Kolmogorov-Smirnov to our data, since our sample size was (N=174) and our data did not follow the normal distribution, we applied non-parametric statistical criteria. We also used a significance level of  $\alpha = 0.05$  (5%) to test differences. Specifically, Kruskal-Wallis was used to test whether the frequency with which teachers in the study used differentiated instructional strategies depending on their individual characteristics (school district, age, total years of teaching experience, specialty, school's organisation, employment status).

We also used the One-Way Anova for means and standard deviations, and the Kruskal-Wallis for probabilistic information. In addition, the Mann-Whitney U test was used test whether the frequency with which teachers in the sample studied used differentiated instructional strategies depended on their individual characteristics (gender, qualifications, training on special education, training on differentiated instruction). It should be noted that the T-test was used to derive the descriptive data, i.e. the means and standard deviations.

## 4. Results

### 4.1 Individual Characteristics of the Sample of Teachers

Regarding the composition of the sample of teachers who participated in the research, the following can be noted:

The highest percentage of participants work in schools located in urban areas (45.6%), while fewer teachers work in semi-urban and rural areas (36.8% and 17.2% respectively). Regarding gender, the sample is not evenly distributed as 2/3 of all participants are female teachers (69.5%), while 30.5% are male teachers. Regarding age, not all age categories are equally represented in the sample of the present study. The highest percentage (34.5%) is in the 31-40 age group, followed by the 41-50 age group (32.8%), the 30 and younger age group (27%) and finally, the 51 and 60 age group (5.7%).

Regarding the total number of years of teaching experience in education, the percentages were higher in the categories 0-10 years (51.1%) and 11-20 years (42.5%), while the smallest percentage (6.3%) included teachers with 21-30 years of teaching experience. Regarding specialty, it is noted that the highest percentage (90.2%) is related to teacher specialty, and this is reasonable since this particular specialty covers the largest percentage in primary education, followed by English teacher specialty (4.6%), while the percentages of participation in other specialties are also very low, such as computer teachers (3.4%), art teachers (0.6%), drama teachers (0.6%) and physical education teachers (0.6%).

Regarding school's organization, the highest percentage (60.3%) of teachers in the sample work in schools with 7-12 classes, followed by 36.2% who work in schools with 4-6 classes, and finally, only 3.4% work in schools with 1-3 classes. Regarding the employment status, the highest percentage (55.2%) is substitute teachers, followed by teachers who have a permanent teaching position (39.1%), and seconded teachers (5.7%). In terms of qualifications, it can be noted that 8% of teachers have an additional college degree, 29.9% of teachers have a master's tdegree, while only 1% of teachers have a doctoral degree.

As for training in the field of special education, a very high percentage (86.2%) had training in the field of special education. Finally, regarding training on differentiated instruction, a high percentage (69%) had trained on differentiated instruction.

### 4.2 Teachers' Frequency of Use of Suggested Differentiated Instructional Strategies to Support Students with Learning Difficulties in Their Classroom (1<sup>st</sup> Research Question)

**Table 2.** Distribution of Frequencies, Relative Percentages, Means and Standard Deviations of the Frequency of Implementating of Differentiated Instructional Strategies in Relation to Content

	Content	Never (1)	Sometimes (2)	Frequently (3)	Always (4)	Mean	Standard deviation
1	I use a variety of material for students with learning difficulties.	13 7.5%	61 35.1%	77 44.3%	23 13.2%	2.63	0.806
2	I provide additional material to students with learning difficulties who struggle to understand the course material easily.	25 14.4%	60 34.5%	76 43.7%	13 7.5%	2.44	0.829
3	I use examples that meet experiences or interests of students with learning difficulties when I present course content.	23 13.2%	54 31.0%	72 41.4%	25 14.4%	2.57	0.895
4	I provide more advanced options for students with learning difficulties who effortlessly master the course material.	26 14.9%	59 33.9%	69 39.7%	20 11.5%	2.48	0.885
5	I assign enrichment assignments to high performing students with learning difficulties.	27 15.5%	62 35.6%	71 40.8%	14 8.0%	2.41	0.847
6	I choose the most crucial assignments for underachieving students with learning difficulties.	17 9.8%	46 26.4%	72 41.4%	39 22.4%	2.76	0.910

Table 2 shows the results of the research on the frequency of implementing of suggested differentiated instructional strategies in relation to content.

Table 3 shows the results of the research on the frequency of implementing of suggested differentiated instructional strategies in relation to process.

**Table 3.** Distribution of Frequencies, Relative Percentages, Means and Standard Deviations of the Frequency of Implementation of Differentiated Instructional Strategies in Relation to Process

	<b>Process</b>	<b>Never (1)</b>	<b>Sometimes (2)</b>	<b>Frequently (3)</b>	<b>Always (4)</b>	<b>Mean</b>	<b>Standard Deviation</b>
7	I create assignments that allow students with learning difficulties to interact one another and understand the course content.	27 15.5%	51 29.3%	71 40.8%	25 14.4%	2.54	0.922
8	I adjust the pace of instruction to each student's needs with learning difficulties.	10 5.7%	37 21.3%	73 42.0%	54 31.0%	2.98	0.870
9	I put students with learning difficulties in readiness based groups with other students.	29 16.7%	44 25.3%	75 43.1%	26 14.9%	2.56	0.940
10	I put students with learning difficulties in groups with other students based on what they are interested in.	31 17.8%	48 27.6%	67 38.5%	28 16.1%	2.53	0.966
11	I put students with learning difficulties in learning style appropriate groups with other students.	43 24.7%	46 26.4%	63 36.2%	22 12.6%	2.37	0.993
12	I use a variety of flexible grouping strategies for students with learning difficulties in class.	16 9.2%	51 29.3%	74 42.5%	33 19.0%	2.71	0.879
13	I design assignments using alternative formats for students with learning difficulties.	13 7.5%	51 29.3%	69 39.7%	41 23.6%	2.79	0.888

Table 4. shows the results of the research on the frequency of implementation of suggested differentiated instructional strategies in relation to product.

**Table 4.** Distribution of Frequencies, Relative Percentages, Means and Standard Deviations of the Frequency of Implementation of Differentiated Instructional Strategies in Relation to Product

	<b>Product</b>	<b>Never (1)</b>	<b>Sometimes (2)</b>	<b>Frequently (3)</b>	<b>Always (4)</b>	<b>Mean</b>	<b>Standard Deviation</b>
14	I permit students with learning difficulties to present their products in writing.	9 5.2%	47 27.0%	77 44.3%	41 23.6%	2.86	0.835
15	I permit students with learning difficulties to present their products orally.	5 2.9%	42 24.1%	76 43.7%	51 29.3%	2.99	0.808
16	I offer extra support to students with learning difficulties who have difficulty finishing assignments.	4 2.3%	37 21.3%	62 35.6%	71 40.8%	3.15	0.833

Table 5 presents the results of the research concern the frequency of implementation of suggested differentiated instructional strategies in relation to assessment.

**Table 5.** Distribution of Frequencies, Relative Percentages, Means and Standard Deviations of the Frequency of Implementation of Differentiated Instructional Strategies in Relation to Assessment

Assessment	Never	Sometimes	Frequently	Always	Mean	Standard Deviation
	(1)	(2)	(3)	(4)		
17 I give more time to students with learning difficulties to complete tasks or exams.	10 5.7%	28 16.1%	66 37.9%	70 40.2%	3.13	0.884
18 I use continuous and various assessments of students with learning difficulties.	14 8.0%	59 33.9%	65 37.4%	36 20.7%	2.71	0.887
19 I use three or more types of assessment to determine course grades.	8 4.6%	48 27.6%	68 39.1%	50 28.7%	2.92	0.863
20 I modify assignment deadlines regarding the requirements and/or circumstances of students with learning difficulties.	15 8.6%	41 23.6%	73 42.0%	45 25.9%	2.85	0.906
21 I pre-assess students with learning difficulties before the lesson starts.	25 14.4%	46 26.4%	68 39.1%	35 20.1%	2.65	0.961

Table 6 presents the results of the research concern the frequency of implementation of suggested differentiated instructional strategies in relation to learning environment.

**Table 6.** Distribution of Frequencies, Relative Percentages, Means and Standard Deviations of the Frequency of Implementation of Differentiated Instructional Strategies in Relation to Learning Environment

Learning Environment	Never	Sometimes	Frequently	Always	Mean	Standard Deviation
	(1)	(2)	(3)	(4)		
22 I design assignments to foster a sense of community among students with and without learning difficulties.	10 5.7%	38 21.8%	75 43.1%	51 29.3%	2.96	0.863
23 I make a conscious effort to ensure each student with learning difficulties feels known, welcomed, and appreciated.	4 2.3%	23 13.2%	68 39.1%	79 45.4%	3.28	0.778
24 I make a conscious effort to ensure students with learning difficulties engage consistently and fairly in class.	3 1.7%	21 12.1%	69 39.7%	81 46.6%	3.31	0.750
25 I encourage students with learning difficulties to help each other with students without difficulties.	11 6.3%	35 20.1%	56 32.2%	72 41.4%	3.09	0.930

#### *4.3 Relationship Between the Frequency of Implementation of Suggested Differentiated Instructional Strategies to Support Students with Learning Difficulties in their Class and their Individual Characteristics (2<sup>nd</sup> Research Question)*

Table 7 presents statistically significant results for the correlations of the variable "school district" and the dependent variables of the question concerning the degree of implementation of differentiated instructional strategies for students with learning difficulties.

**Table 7.** Means and Standard Deviations for Statements Concern the Implementation of Differentiated Instructional Strategies in the Classroom, based on School District. Test of Statistically Significance Differences Between the Means

Statements concern the implementation of differentiated instructional strategies in the classroom	School District						Test of statistically significance differences		
	Urban area with population of 10.001 or more		Semi-urban area with population from 2.001 to 10.000		Rural area with population less than 2.000				
	M	SD	M	SD	M	SD	H	df	p
I assign enrichment assignments to high performing students with learning difficulties.	2.38	0.832	2.36	0.849	2.77	0.817	6.190	2	.045
I choose the most crucial assignments for underachieving students with learning difficulties.	2.70	0.848	2.64	0.998	3.20	0.761	8.762	2	.013
I permit students with learning difficulties to present their products in writing.	2.78	0.842	2.80	0.858	3.23	0.679	7.152	2	.028
I encourage students with learning difficulties to help each other with students without difficulties.	3.00	0.886	3.02	1.016	3.47	0.776	6.672	2	.036

Table 8 presents statistically significant results for the correlations of the variable "gender" and the dependent variables of the question regarding the degree of implementation of differentiated instructional strategies for students with learning difficulties.

**Table 8.** Means and Standard Deviations for Statements Concern the Implementation of Differentiated Instructional Strategies in the Classroom, based on Gender. Test of Statistically Significance Differences Between the Means

Statements concern the implementation of differentiated instructional strategies in the classroom	Gender				Test of statistically significance differences	
	Male		Female			
	M	SD	M	SD	U	p
I adjust the pace of instruction to each student's needs with learning difficulties.	2.77	0.824	3.07	0.877	2540.500	.021
I use continuous and various assessments of students with learning difficulties.	2.49	0.823	2.80	0.900	2608.500	.039
I use three or more types of assessment to determine course grades.	2.68	0.779	3.02	0.880	2505.500	.015
I modify assignment deadlines regarding the requirements and/or circumstances of students with learning difficulties.	2.57	0.844	2.98	0.908	2373.000	.004
I design assignments to foster a sense of community among students with and without learning difficulties.	2.77	0.847	3.04	0.860	2644.000	.050
I make a concious effort to ensure each student with learning difficulties feels known, welcomed, and appreciated.	3.13	0.735	3.34	0.791	2655.000	.050
I make a concious effort to ensure students with learning difficulties engage consistently and fairly in class.	3.17	0.700	3.37	0.765	2641.000	.043
I encourage students with learning difficulties to help each other with students without difficulties.	2.89	0.934	3.17	0.919	2630.000	.046



Table 9 presents statistically significant results for the correlations of the variable "age" and the dependent variables of the question regarding the degree of implementation of differentiated instructional strategies for students with learning difficulties.

**Table 9.** Means and Standard Deviations for Statements Concern the Implementation of Differentiated Instructional Strategies in the Classroom, based on Age. Test of Statistically Significance Differences Between the Means

Statements concern the implementation of differentiated instructional strategies in the classroom	Age								Test of statistically significance differences		
	<30		31-40		41-50		51-60		H	df	p
	M	SD	M	SD	M	SD	M	SD			
I use a variety of material for students with learning difficulties.	2.53	0.856	2.53	0.769	2.67	0.764	3.50	0.527	12.682	3	.005
I provide additional material to students with learning difficulties who struggle to understand the course material easily.	2.32	0.958	2.33	0.816	2.53	0.684	3.20	0.632	10.343	3	.016
I use examples that meet experiences or interests of students with learning difficulties when I present course content.	2.34	0.939	2.47	0.873	2.70	0.823	3.50	0.527	15.317	3	.002
I provide more advanced options for students with learning difficulties who effortlessly master the course material.	2.32	0.810	2.35	0.936	2.61	0.861	3.20	0.632	10.943	3	.012
I assign enrichment assignments to high performing students with learning difficulties.	2.36	0.819	2.22	0.846	2.53	0.826	3.20	0.632	12.043	3	.007
I put students with learning difficulties in readiness based groups with other students.	2.30	0.976	2.53	0.999	2.70	0.823	3.20	0.632	9.168	3	.027
I permit students with learning difficulties to present their products in writing.	2.66	0.815	2.80	0.798	3.02	0.896	3.30	0.483	8.163	3	.043
I give more time to students with learning difficulties to complete tasks or exams.	2.89	0.938	3.07	0.899	3.37	0.794	3.20	0.789	8.054	3	.045

Table 10 presents statistically significant results for the correlations of the variable "total years of teaching experience" and the dependent variables of the question concerning the degree of implementation of differentiated instructional strategies for students with learning difficulties.

**Table 10.** Means and Standard Deviations for Statements Concern the Implementation of Differentiated Instructional Strategies in the Classroom, based on Total Years of Teaching Experience. Test of Statistically Significance Differences Between the Means

Statements concern the implementation of differentiated instructional strategies in the classroom	Total years of teaching experience						Test of statistically significance differences		
	0-10		11-20		21-30		H	df	p
	M	SD	M	SD	M	SD			
I use a variety of material for students with learning difficulties.	2.48	0.827	2.74	0.760	3.09	0.701	6.513	2	.039
I use examples that meet experiences or interests of students with learning difficulties when I present course content.	2.33	0.914	2.76	0.808	3.27	0.647	15.317	2	.000
I provide more advanced options for students with learning difficulties who effortlessly master the course material.	2.30	0.884	2.59	0.843	3.09	0.831	8.930	2	.012
I choose the most crucial assignments for underachieving students with learning difficulties.	2.56	0.988	2.95	0.774	3.18	0.751	8.000	2	.018
I create assignments that allow students with learning difficulties to interact one another and understand the course content.	2.39	0.937	2.64	0.885	3.09	0.831	6.234	2	.044
I put students with learning difficulties in groups with other students based on what they are interested in.	2.40	0.997	2.62	0.932	2.91	0.833	6.239	2	.044
I permit students with learning difficulties to present their products in writing.	2.71	0.842	2.96	0.818	3.45	0.522	9.947	2	.007
I permit students with learning difficulties to present their products orally.	2.71	0.842	2.96	0.818	3.45	0.522	10.227	2	.006
I offer extra support to students with learning difficulties who have difficulty finishing assignments.	2.83	0.801	3.11	0.804	3.55	0.522	6.218	2	.045
I give more time to students with learning difficulties to complete tasks or exams.	3.02	0.879	3.23	0.786	3.64	0.505	9.288	2	.010
I make a conscious effort to ensure each student with learning difficulties feels known, welcomed, and appreciated.	3.13	0.828	3.41	0.701	3.55	0.688	6.015	2	.049

In addition, no statistically significant result was found relating to the relationship between the frequency of implementation of suggested differentiated instructional strategies and the variable "specialties".

Table 11 presents statistically significant results for the correlations of the variable "school's organization" and the dependent variables of the question regarding the degree of implementation of differentiated instructional strategies for students with learning difficulties.

**Table 11.** Means and Standard Deviations for Statements Concern the Implementation of Differentiated Instructional Strategies in the Classroom, based on School’s Organization. Test of Statistically Significance Differences Between the Means

Statements concern the implementation of differentiated instructional strategies in the classroom	School’s organization						Test of statistically significance differences		
	1-3 classes		4-6 classes		7-12 classes		H	df	p
	M	SD	M	SD	M	SD			
I modify assignment deadlines regarding the requirements and/or circumstances of students with learning difficulties.	3.83	0.408	2.71	1.038	2.88	0.805	8.780	2	.012

Table 12 presents statistically significant results for the correlations of the variable "employment status" and the dependent variables of the question regarding the degree of implementation of differentiated instructional strategies for students with learning difficulties.

**Table 12.** Means and Standard Deviations for Statements Concern the Implementation of Differentiated Instructional Strategies in the Classroom, based on Employment Status. Test of Statistically Significance Differences Between the Means

Statements concern the implementation of differentiated instructional strategies in the classroom	Employment status						Test of statistically significance differences		
	Permanent teaching position		Seconded teachers		Substitute teachers		H	df	p
	M	SD	M	SD	M	SD			
I provide additional material to students with learning difficulties who struggle to understand the course material easily.	2.69	0.697	2.50	0.527	2.26	0.897	9.517	2	.009
I use examples that meet experiences or interests of students with learning difficulties when I present course content.	2.84	0.822	2.60	0.699	2.38	0.921	9.545	2	.008
I provide more advanced options for students with learning difficulties who effortlessly master the course material.	2.76	0.813	2.40	0.699	2.28	0.903	12.418	2	.002
I assign enrichment assignments to high performing students with learning difficulties.	2.68	0.742	2.30	0.823	2.24	0.880	10.930	2	.004
I choose the most crucial assignments for underachieving students with learning difficulties.	3.04	0.818	2.90	0.568	2.55	0.950	10.390	2	.006
I adjust the pace of instruction to each student’s needs with learning difficulties.	3.15	0.815	3.30	0.438	2.83	0.914	6.358	2	.042
I put students with learning difficulties in learning style	2.60	0.949	2.30	1.059	2.21	0.994	6.121	2	.047

appropriate groups with other students.									
I permit students with learning difficulties to present their products in writing.	3.07	0.798	3.10	0.876	2.69	0.825	10.071	2	.007
I give more time to students with learning difficulties to complete tasks or exams.	3.26	0.803	3.70	0.483	2.91	0.934	8.781	2	.012
I use continuous and various assessments of students with learning difficulties.	2.81	0.833	3.40	0.516	2.56	0.916	9.492	2	.009
I pre-assess students with learning difficulties before the lesson starts.	2.93	0.903	2.60	1.174	2.46	0.939	9.374	1	.009
I encourage students with learning difficulties to help each other with students without difficulties.	3.29	0.811	2.70	0.823	2.98	0.995	6.318	2	.042

Table 13 presents statistically significant results for the correlations of the variable "college degree" (except for the basic degree) and the dependent variables of the question regarding the degree of implementation of differentiated instructional strategies for students with learning difficulties.

**Table 13.** Means and Standard Deviations for Statements Concern the Implementation of Differentiated Instructional Strategies in the Classroom, based on College Degree (except for the Basic Degree). Test of Statistically Significance Differences Between the Means

Statements concern the implementation of differentiated instructional strategies in the classroom	College degree (except for the basic degree)				Test of statistically significance differences	
	Yes		No		U	p
	M	SD	M	SD		
I use a variety of material for students with learning difficulties.	3.07	0.616	2.59	0.811	751.000	.028
I provide additional material to students with learning difficulties who struggle to understand the course material easily.	2.93	0.829	2.40	0.818	729.000	.021
I adjust the pace of instruction to each student's needs with learning difficulties.	3.43	0.646	2.94	0.878	779.500	.045
I design assignments using alternative formats for students with learning difficulties.	3.36	0.842	2.74	0.878	699.000	.014
I permit students with learning difficulties to present their products orally.	3.43	0.646	2.96	0.811	762.500	.035
I offer extra support to students with learning difficulties who have difficulty finishing assignments.	3.79	0.579	3.09	0.830	581.500	.001
I give more time to students with learning difficulties to complete tasks or exams.	3.57	0.756	3.09	0.886	758.000	.032
I make a conscious effort to ensure each student with learning difficulties feels known, welcomed, and appreciated.	3.64	0.633	3.24	0.783	794.500	.050

Table 14 presents statistically significant results for the correlations of the variable "master's degree" and the

dependent variables of the question regarding the degree of implementation of differentiated instructional strategies for students with learning difficulties.

**Table 14.** Means and Standard Deviations for Statements Concern the Implementation of Differentiated Instructional Strategies in the Classroom, based on Master’s Degree. Test of Statistically Significance Differences Between the Means

Statements concern the implementation of differentiated instructional strategies in the classroom	Master’s degree				Test of statistically significance differences	
	Yes		No		U	p
	M	SD	M	SD		
I use a variety of material for students with learning difficulties.	3.00	0.594	2.48	0.835	2017.000	.000
I provide additional material to students with learning difficulties who struggle to understand the course material easily.	2.81	0.627	2.29	0.857	2072.000	.000
I use examples that meet experiences or interests of students with learning difficulties when I present course content.	2.98	0.700	2.39	0.914	2057.000	.000
I provide more advanced options for students with learning difficulties who effortlessly master the course material.	2.73	0.819	2.37	0.893	2489.000	.018
I assign enrichment assignments to high performing students with learning difficulties.	2.67	0.706	2.30	0.880	2428.500	.009
I choose the most crucial assignments for underachieving students with learning difficulties.	3.06	0.669	2.64	0.971	2416.500	.009
I create assignments that allow students with learning difficulties to interact one another and understand the course content.	2.90	0.748	2.39	0.949	2150.000	.000
I adjust the pace of instruction to each student’s needs with learning difficulties.	3.33	0.706	2.84	0.894	2215.000	.001
I put students with learning difficulties in readiness based groups with other students.	2.92	0.860	2.21	0.934	2181.000	.001
I put students with learning difficulties in groups with other students based on what they are interested in.	2.94	0.958	2.35	0.917	2070.500	.000
I put students with learning difficulties in learning style appropriate groups with other students.	2.63	0.971	2.25	0.984	2483.500	.018
I design assignments using alternative formats for students with learning difficulties.	3.21	0.800	2.61	0.867	1996.000	.000
I permit students with learning difficulties to present their products orally.	3.33	0.648	2.85	0.830	2174.000	.000
I offer extra support to students with learning difficulties who have difficulty finishing assignments.	3.48	0.671	3.01	0.858	2204.500	.001
I give more time to students with learning difficulties to complete tasks or exams.	3.46	0.609	2.98	0.945	2309.000	.002
I use continuous and various assessments of students with learning difficulties.	3.06	0.752	2.56	0.900	2208.000	.001
I use three or more types of assessment to determine course grades.	3.21	0.696	2.80	0.899	2359.000	.005
I modify assignment deadlines regarding the requirements and/or circumstances of students with learning difficulties.	3.23	0.703	2.69	0.937	2162.000	.000
I make a concious effort to ensure each student with learning difficulties feels known, welcomed, and appreciated.	3.56	0.574	3.16	0.823	2336.500	.003

Table 15 presents statistically significant results for the correlations of the variable "training on special education" and the dependent variables of the question regarding the degree of implementation of differentiated instructional strategies for students with learning difficulties.

**Table 15.** Means and Standard Deviations for Statements Concern the Implementation of Differentiated Instructional Strategies in the Classroom, based on Training on Special Education. Test of Statistically Significance Differences Between the Means

Statements concern the implementation of differentiated instructional strategies in the classroom	<i>Training on special education</i>				Test of statistically significance differences	
	Yes		No			
	M	SD	M	SD	U	p
I provide more advanced options for students with learning difficulties who effortlessly master the course material.	2.57	0.814	1.92	1.100	1115.500	.002
I create assignments that allow students with learning difficulties to interact one another and understand the course content.	2.61	0.851	2.13	1.227	1367.000	.046
I adjust the pace of instruction to each student's needs with learning difficulties.	3.03	0.874	2.71	0.806	1373.500	.048
I pre-assess students with learning difficulties before the lesson starts.	2.71	0.959	2.29	0.908	1359.500	.044
I make a conscious effort to ensure each student with learning difficulties feels known, welcomed, and appreciated.	3.32	0.771	3.00	0.780	1372.000	.041
I make a conscious effort to ensure students with learning difficulties engage consistently and fairly in class.	3.35	0.743	3.04	0.751	1371.000	.040
I encourage students with learning difficulties to help each other with students without difficulties.	3.15	0.895	2.67	1.049	1325.000	.028

Table 16 presents statistically significant results for the correlations of the variable "training on differentiated instruction" and the dependent variables of the question regarding the degree of implementation of differentiated instructional strategies for students with learning difficulties.

**Table 16.** Means and Standard Deviations for Statements Concern the Implementation of Differentiated Instructional Strategies in the Classroom, based on Training on Differentiated Instruction. Test of Statistically Significance Difference Between the Means

Statements concern the implementation of differentiated instructional strategies in the classroom	<i>Training on differentiated instruction</i>				Test of statistically significance difference	
	Yes		No			
	M	SD	M	SD	U	p
I use a variety of material for students with learning difficulties.	2.80	0.643	2.26	0.994	2121.000	.000
I provide additional material to students with learning difficulties who struggle to understand the course material easily.	2.64	0.658	2.00	0.991	1930.000	.000
I use examples that meet experiences or interests of students with learning difficulties when I present course content.	2.78	0.727	2.11	1.058	1969.500	.000
I provide more advanced options for students with	2.73	0.733	1.93	0.949	1678.000	.000

learning difficulties who effortlessly master the course material.						
I assign enrichment assignments to high performing students with learning difficulties.	2.65	0.682	1.89	0.945	1639.000	.000
I choose the most crucial assignments for underachieving students with learning difficulties.	3.05	0.720	2.13	0.972	1565.000	.000
I create assignments that allow students with learning difficulties to interact one another and understand the course content.	2.85	0.706	1.85	0.979	1409.000	.000
I adjust the pace of instruction to each student's needs with learning difficulties.	3.28	0.661	2.33	0.932	1445.500	.000
I put students with learning difficulties in readiness based groups with other students.	2.86	0.748	1.91	0.996	1537.500	.000
I put students with learning difficulties in groups with other students based on what they are interested in.	2.79	0.849	1.94	0.960	1723.500	.000
I put students with learning difficulties in learning style appropriate groups with other students.	2.62	0.900	1.81	0.973	1805.000	.000
I use a variety of flexible grouping strategies for students with learning difficulties in class.	2.94	0.737	2.20	0.959	1822.500	.000
I design assignments using alternative formats for students with learning difficulties.	3.02	0.767	2.30	0.944	1854.000	.000
I permit students with learning difficulties to present their products in writing.	3.05	0.708	2.44	0.945	2067.000	.000
I permit students with learning difficulties to present their products orally.	3.20	0.669	2.54	0.905	1879.500	.000
I offer extra support to students with learning difficulties who have difficulty finishing assignments.	3.38	0.711	2.65	0.872	1775.300	.000
I give more time to students with learning difficulties to complete tasks or exams.	3.38	0.649	2.57	1.075	1869.000	.000
I use continuous and various assessments of students with learning difficulties.	2.96	0.738	2.15	0.940	1675.000	.000
I use three or more types of assessment to determine course grades.	3.17	0.702	2.37	0.938	1679.000	.000
I modify assignment deadlines regarding the requirements and/or circumstances of students with learning difficulties.	3.08	0.705	2.33	1.082	1913.000	.000
I pre-assess students with learning difficulties before the lesson starts.	2.86	0.919	2.19	0.892	1963.500	.000
I design assignments to foster a sense of community among students with and without learning difficulties.	3.19	0.652	2.44	1.040	1867.000	.000
I make a conscious effort to ensure each student with learning difficulties feels known, welcomed, and appreciated.	3.52	0.334	2.74	0.955	1747.000	.000
I make a conscious effort to ensure students with learning difficulties engage consistently and fairly in class.	3.54	0.517	2.80	0.919	1755.000	.000
I encourage students with learning difficulties to help each other with students without difficulties.	3.38	0.688	2.43	1.057	1597.000	.000

## 5. Discussion

### 5.1 Teachers' Frequency of Use of Suggested Differentiated Instructional Strategies to Support Students with Learning Difficulties in Their Classroom

From the overall consideration of the individual findings, specific findings concerning the implementation of specific proposed differentiated instructional strategies to students with learning difficulties in the class emerge, which are presented in more detail below.

More specifically, regarding "content differentiation", the respondents stated that they apply always to often, in order of priority, the following differentiated instructional strategies in their class: they choose the most crucial assignments for underachieving students with learning difficulties (63.8%), they use a variety of material for students with learning difficulties (56.5%), they use examples that meet experiences or interests of students with learning difficulties when they present the course content (55.5%), they provide additional materials to students with learning difficulties who struggle to understand the course material easily (51.2 %), they provide more advanced options for students with learning difficulties who effortlessly master the course content (51.2%), and finally they assign high-performing students with learning difficulties with enrichment assignments (48.8%). For the second most frequently applied strategy, the findings of our research also agree with the findings of other related studies (Obson, 2008; Adlam, 2007; Rodriguez, 2012; Bellou, 2019).

Also, regarding "process differentiation", the respondents stated that they apply always to often, in order of priority, the following strategies of differentiated instruction in their class: they adjust the pace of instruction to each student's needs with learning difficulties (73%), they design assignments using alternative formats for students with learning difficulties (63.3%), they use a variety of flexible grouping strategies for students with learning difficulties in class (61.5%), a strategy which is used to the same extent in other studies (Adlam, 2007; Rodriguez, 2012; Bellou, 2019; Psarianou, 2019). Moreover, the respondents state that they put students with learning difficulties in readiness based groups with other students (58%), they create assignments that help students with learning difficulties to interact one another and understand the course content (55.2%), they put students with learning difficulties in learning style appropriate groups with other students (48.8%) and finally, they put students with learning difficulties with other students based on what they are interest in (48.6%). Regarding the most frequently applied strategy, the findings of our study agree with the findings of another related study (Hobson, 2008).

In addition, regarding "product differentiation", the respondents stated that they apply always to often, in order of priority, the following strategies of differentiated instruction in their class: they offer extra support to students with learning difficulties who have difficulty finishing assignments (76.4%), they permit students with learning difficulties to present their products orally (73%) and finally, they permit students with learning difficulties to present their products in writing (69.9%). Regarding the most frequently applied strategy, the findings of our study agree with the findings of a relevant study (Bellou, 2019). Also, regarding the second and third most frequently applied strategy, which refer to the way of presenting the product, the findings of the present study agree with the findings of other relevant studies (Bellou, 2019; Psarianou, 2019).

In relation to "assessment differentiation", the respondents stated that they apply always or often, in order of priority, the following differentiated instructional strategies in their class: they give more time to students with learning difficulties to complete assessment tasks or exams (78.1%), they modify assignment deadlines regarding the requirements and/or circumstances of students with learning difficulties (67.9%), they use three or more types of assessment to determine course grades (67.8%). This finding of our study agrees with the findings of other relevant studies (Bellou, 2019; Psarianou, 2019). Less often compared to previous strategies, teachers stated that they pre-assess students with learning difficulties before the lesson starts (59.2%), and finally, they use continuous and various assessments of students with learning difficulties (58.1%).

Finally, regarding "learning environment differentiation", the respondents stated that they apply always to often, in order of priority, the following differentiated instruction strategies in their class: they make a conscious effort to ensure students with learning difficulties engage consistently and fairly in class (86.3%), they make a conscious effort to ensure each student with learning difficulties feels known, welcomed, and appreciated (74.5%), they encourage students with learning difficulties to help each other with students without difficulties (73.6%), and finally, they design assignments to foster a sense of community among students with and without learning difficulties (72.4%). Motivation and encouragement for interaction and participation are strategies that are confirmed by the findings of other relevant studies (Psarianou, 2019; Bellou, 2019).



### *5.2 Relationship Between the Frequency of Implementation of Differentiated Instructional Strategies in the Class and the Individual Characteristics of Teachers*

The question regarding the frequency of implementation of certain differentiated instructional strategies is examined based on the school district. According to the results, it appears that teachers who teach in rural areas apply more often differentiated instructional strategies, compared to those who teach in urban and semi-urban areas. This may be due to the small number of students in schools in rural areas. It is possible to implement differentiated instruction more easily, if one considers that class size is an inhibiting factor for its implementation. However, this finding of our study does not agree with the finding of another related study (Bellou, 2019), where the school district was not found to affect the degree of implementation of differentiated instructional strategies to students with learning difficulties in primary education.

Moreover, the specific question is examined based on the gender of teachers. Analytically, gender has effect on the frequency of implementation of certain differentiated instructional strategies in the class. Specifically, women implement differentiated instructional strategies more often than men. This finding agrees with the findings of a related study by Filippatou and Vendista (2017), where female secondary school teachers implement differentiated instruction more often than men. On the contrary, this finding of our study is not consistent with the findings of other related studies (Barnes, 2008; King, 2010; Bellou, 2019), where gender has no effect on the degree of implementation of differentiated instructional strategies.

Furthermore, the specific question is investigated based on the age of teachers. Older teachers implement specific differentiated instructional strategies more often than younger teachers. This finding agrees with the findings of another related study (Angle, 2009), but it is not in line with the findings of other relevant studies, where a negative correlation was found between the use of differentiated instruction and age (Moutlas, 2021; Bellou, 2019).

Additionally, the specific question is examined base on the teaching experience of teachers. Teaching experience has effect on the degree of implementation of specific differentiated instructional strategies in the classroom. This finding is also confirmed by other related studies (Dixon, Yssel, McConnell, & Hardin, 2014; Chien, 2015; Garrett, 2017; Suprayogi, Valcke, & Godwin, 2017). Specifically, it was found that teachers with more teaching experience implement specific differentiated instructional strategies more often compared to those who have fewer years of teaching experience. These findings are directly in line with previous findings (Chien, 2015; Garrett, 2017; Suprayogi et al., 2017; Yetnayet, 2020). Also, these findings agree with the study of Tadesse (2020), where teachers who had more teaching experience implemented differentiated instruction more often compared to those who had fewer years of teaching experience. On the contrary, these findings are not in line with other related studies (Tomlinson & Doubet, 2005; Hobson, 2008). Moreover, the specific question investigated based on the school's organization, and the results showed that school's organization has effect on the degree of implementation of specific differentiated instructional strategies in the classroom. Specifically, teachers who work in schools with 1-3 classes implement more often specific differentiated instructional strategies that teachers who work in bigger schools.

Moreover, the specific question is examined based on the employment status of teachers. Based on their answers, it appears that teachers who have a permanent position or are seconded implement specific differentiated instructional strategies in their classroom more often than substitute teachers. The findings do not agree with Bellou's findings (2019), where the employment status had no effect on the degree of implementation of differentiated instruction.

Furthermore, the factor concerns qualification has effect on the degree of implementation of specific differentiated instructional strategies in the classroom and the findings are directly in line with previous findings (Casey, 2011; McMillan, 2011; Suprayogi et al., 2017). Specifically, teachers who have an additional college degree except for the basic degree or teachers who have a postgraduate degree implement specific strategies of differentiated instruction more often than those who do not have an extra degree. This finding are consistent with other findings of relevant studies, where teachers with more qualifications implement more differentiated instruction in their classrooms (McMillan, 011; Whipple, 2012; Mavroudi, 2016; Yetnayet, 2020; Tadesse, 2020).

Moreover, the factor concerns training on special education has effect on the frequency of implementation of certain differentiated instructional strategies in the class. Analytically, teachers who received training on special education implement differentiated instructional strategies in their classroom more often than those who did not receive training on special education. This finding aligns with the findings of other relevant studies (Whipple, 2012; Bellou, 2019), where teachers who received training on special education, implement strategies of differentiated instruction to a greater extent.

Finally, the factor concerns training on differentiated instruction has effect on the frequency of implementation of

certain differentiated instructional strategies in the classroom. More specifically, teachers who received training on differentiated instruction implement more often differentiated instructional strategies in the classroom than those who did not receive training on differentiated instruction. This finding also agrees with a related finding of Bellou's study (2019), where teachers who received training either at undergraduate or postgraduate level, or received training on differentiated instruction, used certain differentiated instructional strategies more often. Additionally, this finding is also in line with the findings of Tadesse's (2020) study, where teachers who received training on differentiated instruction implemented differentiated instruction to a greater extent in their classrooms. Furthermore, this finding is confirmed by other related studies (Hobson, 2008; James, 2009; King, 2010; Whipple, 2012; Dixon et al., 2014).

## 6. Conclusion

Based on the findings of this research and the previous analysis, we can formulate the following conclusions. Regarding "content differentiation" the highest percentage of respondents focus on the selection of the most crucial assignments for underachieving students with learning difficulties. Lower percentage of respondents stated that they use a variety of materials for students with learning difficulties, they use examples that meet interests or experiences of students with learning difficulties when they present course content, they provide additional material to students with learning difficulties who struggle to understand the course material easily, and provide more advanced options for students with learning difficulties who effortlessly master the course material. Finally, even lower percentages of teachers stated that they provide enrichment assignments to high-performing students with learning difficulties.

The majority of teachers regarding "process differentiation" highlight as the most frequently applied strategy the adjustment of the pace of instruction based on the needs of each student with learning difficulties. To a significantly lesser extent teachers design assignments using alternative formats for students with learning difficulties, they use a variety of flexible grouping strategies in class, they put students with learning difficulties in readiness based group with other students, and create assignments that allow students with learning difficulties to interact one another and understand the course content. Finally, to an even lesser extent teachers stated that they put students with learning difficulties in groups with other students based on what they are interested in.

The highest percentages of the teachers regarding "product differentiation" focus on the provision of extra support to students with learning difficulties who have difficulty finishing assignments, while the percentages of teachers who permit students with learning difficulties to present their products orally are lower and finally, the percentages concern the strategy of enabling students with learning difficulties to present their products in writing are even lower.

According to "assessment differentiation" the highest percentages of respondents focus on the provision of more time for students with learning difficulties to complete tasks or exams. Significantly lower percentages of teachers modify assignment deadlines regarding the requirements and/or circumstances of students with learning difficulties, and they use three or more types of assessment to determine course grades, and finally even smaller percentages pre-assess students with learning difficulties before the lesson starts and use continuous and various assessments of students with learning difficulties.

Regarding "learning environment differentiation" the majority of teachers highlight as the most frequently used strategy the conscious effort they make to ensure students with learning difficulties participate fairly and consistently in class. To a significantly lesser extent, teachers stated that they make a conscious effort to ensure each student with learning difficulties feels known, welcomed, and appreciated, encourage students with learning difficulties to help each other with students without difficulties, and finally, design assignments to foster a sense of community among students with and without learning difficulties.

Finally, it was found that there is a statistically significant correlation between the frequency of implementation of differentiated instruction and the variables: school district, gender, age, teaching experience, school's organization, employment status, qualifications and training on special education and differentiated instruction.

The discussion of the results of the present study highlighted aspects, which can be used for further research. In particular, the investigation of the perceptions of all those involved (teachers, students, educational leadership, parents, etc.) regarding the implementation of differentiated instructional strategies to students with learning difficulties in the general classroom, at different levels of education, at a nationwide level and with the combined utilization of qualitative and quantitative research methods, constitutes a field of research open to researchers in the field, especially for the Greek educational reality.

Finally, the limitations of the present research include the use of a one-dimensional approach to the subject (use of only a quantitative method), the geographical limitation, the small sample, the very small participation of specialties

and the inability to complete the questionnaire in person due to the pandemic of COVID-19.

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