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Differentiated Instruction as A Learner - Centred Form of Teaching in Primary Education: Views and Attitudes of Greek Teachers

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Abstract

The present study aims to explore the attitudes and opinions of active Greek teachers regarding the implementation of Differentiated Instruction (DI) as a student - centred form of teaching in Primary Education. In particular, it is investigated whether during the planning and implementation of teaching teachers proceed to specific teaching actions that have as their focus the student, such as collecting information before the beginning of the teaching process about the students' learning readiness, learning profile and interests, adapting the teaching of a teaching unit to areas that were not understood by the students, using a variety of ways and means in the presentation of the new content of the learning unit, using a variety of methods and media in the presentation of the new content of the learning unit, and using a variety of methods and media in order to improve the learning process. The research was conducted with a sample of two hundred and ten teachers who taught in primary schools in Greece. A structured questionnaire was used as a research tool. The main conclusions that emerged in the research are as follows: a) A high percentage of the research participants report that before the beginning of the teaching process they collect information about the students' learning readiness, learning profile and interests, b) A high percentage of the research participants report that they use the students' ideas and experiences to design activities in the classroom, that in designing activities they take into account the different ways in which each student.

Keywords: differentiated instruction, learner - centered form, primary education, views, Greek teachers

1. Introduction

In recent decades, contemporary educational trends at the international level have intensified changes in the composition of the student population in general school classrooms (Argyropoulou, 2018; Hardy et al., 2019; Panteliadou & Filippatou, 2013; Pozas et al., 2019; Pozas et al., 2022). In Greece, demographic changes, as a result of mass population movements, have resulted in the prevalence of the phenomenon of multicultural composition of the wider society and consequently in the classroom at all levels of education since the student population is characterized by cultural and ethnic diversity (Androusou & Iakovou, 2020; Androusou & Sfyroera, 2019; Argyropoulou, 2018; Dimitriadou, 2016). Most classrooms include foreign students with different ethnic and cultural backgrounds, students with different learning needs and interests (Androusou & Iakovou, 2020; Androusou & Askouni, 2004, 2011; Hardy et al., 2019; Kaldi et al., 2011; Kaldi et al., 2017; Kaldi, 2013; Pozas et al., 2022; Santamaria, 2009), bilingual - multilingual students, students with specific learning difficulties (Johansson & Stening, 1999), and students with high learning abilities (Matsagouras, 2008; Tziovara et al., 2017).

This new social and educational reality makes it imperative to change the role of education (Argyropoulou, 2018; Hardy et al., 2019; Panteliadou & Filippatou, 2013; Pozas et al., 2022). Several researches and studies highlight the interest for a modern, learner - centered school that is at the same time adapted to the present social needs , focusing on the need for a new teaching methodology that exploits the heterogeneity of the classroom towards the mitigation of the inequalities reproduced through the school institution (Androusou & Iakovou, 2020; Androusou, & Sfyroera, 2019; Androusou & Askouni, 2004, 2011; Ioannidou - Koutselini & Pyrgiotakis, 2015; Tomlison & Cunningham - Eidson, 2003; Tomlison, 2014,2017). Addressing the diverse needs of students is a necessity and one of the most important challenges for teachers in primary education (Argyropoulou, 2018; Hardy et al., 2019; Pozas et al., 2022; Suprayogi et al., 2017; Tomilson et al., 2003) who must realize that each student is an autonomous entity, a "biography" (Androusou, & Sfyroera, 2019; Argyropoulou, 2018; Kalantzis & Cope, 2012; Koutselini, 2006; Bikos, 2011; Sfyroera, 2019) with distinct potential and experiences, especially when his/her needs and learning readiness deviate from the norms of the majority (Dimitriadou, 2016; Unesco, 2017).

In this context, traditional, teacher - centred and undifferentiated teaching methods are questioned as to their effectiveness in supporting learning in the modern classroom (Argyropoulou, 2018; Dimitriadou, 2016; Ioannidou - Koutselini, 2020; Karageorgou, 2022; Scott, 2012). The new orientations of teaching are based on certain assumptions, such as the s learner - centred form of teaching, respect for diversity, authentic learning and teaching, providing support during teaching, engaging the teacher in reflective processes, etc.. Differentiating Instruction includes all of the above assumptions, which can help to address the reduced participation of students during the lesson. By accepting the above assumptions, which are inherent in differentiation of instruction, the student will be the focus of attention and will be given the opportunity to actively participate in the learning process (Dimitriadou, 2016).

It suggests the need for the teacher through his/her teaching to create opportunities for different ways of understanding, a variety of interpretive schemes about learning and the emergence of the student's uniqueness (Dimitriadou, 2016, p.189; Fridaki, 2009). In other words, Differentiated Instruction (DI) can be the answer to the problems arising from traditional teaching that focuses on the level of the average student and does not take into account the needs of several students (Letina, 2021; Rock et al., 2008; Tziovara et al., 2017). In this context, in the last two decades, DI has been systematically the subject of scientific debate and implementation in teaching practice. DI is an approach in which teachers seek to provide optimal learning for all by carefully aligning learning tasks and activities with students' learning needs (Pozas et al., 2022; Roy et al., 2013; Sidiropoulou et al., 2023; Tomlinson, 2014, 2017).

DI is an innovative teaching approach that involves systematic teaching practices by the teacher -adapting and proactively modifying the curriculum, teaching methods, resources, learning activities and children's projects - to respond effectively to the diversity of students in terms of their readiness level, interests and learning profile (Valiandes et al., 2020; Coubergs et al., 2017; Fykaris, 2013; Gibbs & McKay, 2021; Graham et al., 2021; Koutselini, 2008; Koutselini & Valiandes, 2009; Mavidou, 2019; Mavidou et al., 2020; Panteliadou et al., 2017; Pozas et al., 2022; Sakellariou et al., 2018; Sfyroera, 2007; Tomlinson, 1999,2014,2017). It is considered as a pedagogical approach that supports the social, emotional and academic success of all students in the context of heterogeneous classrooms (Gaitas et al., 2022). The teacher's effort involves the differentiation of three factors according to the readiness, interests and learning characteristics of children (Taylor, 2015; Tomlinson, 2014, 2017; Tziovara et al., 2017): a) the content of instruction, b) the teaching process, c) the outcome. Through this model of teaching, each student can actively participate, continuously learn and reach her full potential (Panteliadou et al., 2017; Palieraki & Koutrouba, 2021; Tomlinson, 2014, 2017; Vera, 2020).

In more detail, for the appropriate planning of instruction, the teacher should focus primarily on the Curriculum and the student (Argyropoulou, 2018; Panteliadou et al., 2017;. Panteliadou & Filippatou, 2013; Tomlinson, 2014, 2017). Regarding the Curriculum and teaching, differentiation is applied in four areas of the educational process, such as content, process, final product and learning environment (Argyropoulou, 2018; Tomlinson, 2004, 2014, 2017). Regarding the student, the teacher during instruction should focus on three, primarily, dimensions, such as readiness or achievement level, interests and specific learning profile, in order to create classrooms that promote full inclusion and foster effective learning for all students based on their specific characteristics (Argyropoulou, 2018). The teacher can implement DI through a variety of teaching activities or instructional strategies, such as homogeneous or heterogeneous subgroups based on students' performance or interests, tiered tasks, asynchronous work, flexible grouping, classroom corners, etc. (Hachfeld & Lazarides, 2021; Maulana et al., 2020; Pozas et al., 2022; Tziovara et al., 2019; Valiandes & Neophytou, 2017; Valiandes et al., 2020).

In line with the above, DI is learner - centred and in full alignment with the principles of constructivism, which can support effective teaching and learning for all students

(Argyropoulou, 2018; Ioannidou - Koutselini, 2020; Valiandes, 2015; Valiandes et al., 2020). DI is a 'learner - centred form' of teaching, which means that all students are respected and their individual needs are taken into account through flexible teaching (Gibbs & McKay, 2021). Within the learner - centred form of teaching the relationships between the teacher and the children are considered and are communicatively equivalent, without being superior to each other (Matsagouras, 2006, p.387). The learner is placed at the centre of the teaching, emerging as a driving force and a regulating factor with the main objective of involving him/her as much as possible in the learning process so that he/she can develop all the skills (Tzika & Kaldi, 2016; Tomlinson & Moon, 2013). The learner - centred concept of teaching aims to cultivate skills of self-action, cooperation, oral response and interaction, which are adapted to the socio-cultural and linguistic specificities of the learners (Dimitriadou, 2016, p. 187).

DI as a learner - centred form is oriented towards postmodern thinking (Fridaki, 2009) according to which teaching is a communicative event that enables participation, choice and decision making by shaping a learning environment that is not oriented towards the dominant ethnocultural group, but its aim is to acquire and modify or deconstruct perceptions and attitudes stemming from stereotypes and prejudices (Dimitriadou, 2016, p. 187). In other words, DI as a learner -centered form of teaching involves the modification of the Curriculum, teaching methods, and learning activities in order to address the different needs of students and create more learning opportunities for each individual student (Coubergs et al., 2017; Kalantzis & Cope, 2012; Valiandes et al., 2018). The teacher in this context avoids standardized learning, seeks to cultivate high cognitive functions and uses time flexibly to shape the learning content and the learning environment to the needs of the student (Dimitriadou, 2016, p. 193). In this way, the teacher aims to ensure that every student has equal opportunities for an effective education and that no one is excluded (Palieraki & Koutrouba, 2021; Sidiropoulou et al., 2023).

The literature review has highlighted several studies that have been implemented in Primary Education and are related to methodological designs related to the effectiveness of DI. The advantages highlighted by these studies (Karageorgou, 2022) are related to student achievement in different subjects (D'Intino & Wang, 2021; Panteliadou, 2020; Karageorgou, 2022), such as mathematics (Bal, 2016; Prast et al., 2018), science (Simpkins et al., 2009) and foreign language teaching (Bantis, 2008).

In addition, there is an increased research interest regarding teachers' views on the use and effectiveness of differentiated teaching, as well as the degree of teachers' familiarity with this form of teaching. (Karageorgou, 2022; Logan, 2011; Moosa & Shareefa, 2019; Panteliadou, 2020; Valiandes, 2015; Vera, 2020). Based on all the above, in the context of the research analysed below, the aim is to detect the attitudes and opinions of teachers who teach in Greek Primary Schools in the Region regarding the implementation of DI as a student - centred form of teaching.

2. Method

2.1 The Research Questions

The following seven (7) research questions are recorded in this research:

Research question (1): prior to the start of the teaching process, do you collect information about students' learning readiness (pre-existing knowledge, skills, experiences), learning profile (different ways of approaching knowledge) and interests?

Research question (2): do you adapt the teaching of a unit to areas not understood by students taking into account their previous assessment?

Research question (3): do you use a variety of ways and means (such as multimodal texts, songs, documentaries, concept maps, the use of new technologies, etc.) in presenting new lesson content so that it is understood by all students?

Research question (4): do you use variation in the time to implement work for each student, such as additional help for weaker students or deepening for advanced students, lengthening time to implement work-exercise, etc.?

Research question (5): do you use students' ideas and experiences to plan activities in the classroom?

Research question (6): do you consider the different ways in which each student masters knowledge when designing activities?

Research question (7): do you consider that the implementation of DI leads to an improvement in students' academic performance compared to the implementation of "traditional teaching"?

2.2 Composition of the Sample

The research was carried out over approximately four weeks, in the months of December 2022 and January 2023. When designing a quantitative sample research, the population of the research is first identified (Creswell, 2014). In this study, the population is the teachers in primary schools in the Region of Epirus (Greece).

For the constitution of the sample, the systematic sampling method was applied, which is considered appropriate for populations recorded in catalogues. In this research, the lists used included the total number of primary schools in the Region of Epirus and the teachers who taught in them (Cohen et al., 2000). In particular, sixty of the total of one hundred and eighty – three primary schools were randomly selected. From these sixty primary schools, the final sample of the survey was formed, consisting of two hundred and ten teachers. However, it is worth noting that in order to constitute the final sample, three hundred questionnaires were initially administered to the survey subjects from which two hundred and ten were finally completed. The participation rate (70%) is considered sufficient to draw conclusions regarding the research questions and the sampling techniques used.

2.3 The Questionnaire

A structured questionnaire with closed-ended questions was chosen as the instrument to measure the variables of the survey questions. This type of questionnaire ensures the conditions of suitability as a measurement instrument because it enables the researcher to easily collect the responses, process the data numerically and apply methods of statistical analysis and correlations between the question variables (Creswell, 2014).

In order to enhance the reliability of the questionnaire, questions were formulated in a clear, concise and understandable manner (Creswell, 2014). In order to ensure the highest possible response rate, as well as internal consistency and validity of the questionnaire, the formulated questions are short, concise, in order to obtain more valid information, about the participants' views and attitudes (Robson & McCartan, 2015).

At the same time, the five-point Likert-type scale with closed-ended questions was chosen for this research, which contributes to the reliability of the questionnaire and offers equal distances in the possible choices of answers, while it is easy and direct to complete (Creswell, 2014). Specific Likert-type scales seem to work best in terms of avoiding random responses, enhancing the internal consistency or homogeneity of the questionnaire (Friborg & Rosenvige, 2013; Gaskell et al., 2016).

In the five-point Likert-type scale, the following graded responses were selected: a) "Not at all" corresponding to number (1), b) "Slightly" corresponding to number (2), c) "Moderately" corresponding to number (3), d) "Very" corresponding to number (4), e) "Extremely" corresponding to number (5).

To conduct the survey, the questionnaire was created with the contribution of the services provided by Google form to save time. The main advantage , among others, of completing the questionnaire online is the possibility for teachers to answer the questions of the questionnaire on their own, uninfluenced and at any time they want. Completion of the questionnaire is individual and each teacher marked his/her level of agreement with the statements of each axis of the questionnaire. The introductory note at the beginning of the questionnaire provides participants with the necessary information and instructions as to its completion and content, the purpose of the survey, the assurance of protection of participants' personal data, and the direct and short way of completing the questionnaire.

2.4 Process of Data Collection

Before the final distribution of the questionnaire, a pilot test of the research instrument (pretest) was conducted with ten teachers to determine whether the questions were understandable or if they presented difficulties of comprehension. This procedure was followed in order to avoid future comprehension problems for the main research sample and to correct possible shortcomings of the instrument.

The questionnaires were sent by email to the survey subjects. A cover letter was sent to the survey participants to accompany the questionnaire. To enhance teacher participation in completing the questionnaires, the teacher personally telephoned each teacher. After

approximately fifteen days, the researcher called a second time to those teachers who had not completed the questionnaire.

Finally, the SPSS statistical processing package was used for coding, statistical processing and statistical analysis of the quantitative data of this survey.

2.5 The Cronbach's Alpha Reliability Index

Before presenting the results, as obtained from the statistical analysis of the questionnaire responses, it was considered necessary to investigate the reliability of the questionnaire. The basic measure for investigating reliability and the most widely used is Cronbach's alpha. This reliability index can take values from 0 to 1. The existence of reliability is confirmed to a significant extent for values greater than 0.7 or 0.8. In this study, the Cronbach's alpha reliability index, carried out for all 36 variables of an extensive research , has a value of a=0.838>0.7.

However, this research investigates seven of the thirty-six questions from the larger survey. In particular, the questions that investigate teachers' views regarding the implementation of DI as a learner - centred form of teaching are examined.

2.6 Limitations of the Research

The main limitations of the present research are the following: i) it is a study of the views of specific teachers of the Region of Epirus who have implemented differentiated teaching in a certain educational context, ii) the quantitative and qualitative analysis based on the description and deepening of the respondents' views, does not aim to generalize the findings of a research, but to highlight interesting aspects of the issue under investigation. Consequently, this paper does not claim the universal character of the findings, but rather the highlighting of important points.

3. Results

3.1 Description of the Frequencies for the 7 Variables - Questions

The results section provides a descriptive analysis in 7 tables of the data obtained from the answers to the 7 questions.

Table 1. Frequencies for the Question - Variable (1)

question (1)	frequency	percent (%)
Not at all	2	1,0
Slightly	9	4,3
Moderately	65	31,0
Very	112	53,3
Extremely	22	10,5
Total	**210**	**100**

The first question is this: “To what extent do you consider that before starting the teaching process you collect information about students' learning readiness (prior knowledge, skills, experiences), learning profile (different ways of approaching knowledge) and interests?”. Of the research subjects, 2 (1%) stated 'Not at all', 9 (4.3%) stated 'Slightly', 65 (31%) stated 'Moderately', 112 (53.3%) stated 'Very' and 22 (10.5%) stated 'Extremely' (Table 1).

Table 2. Frequencies for the Question - Variable (2)

question (2)	frequency	percent (%)
Not at all	1	0,5
Slightly	4	1,9
Moderately	32	15,2
Very	148	70,5
Extremely	25	11,9
Total	**210**	**100**

The second question is: “to what extent do you consider that you adapt the teaching of a module to areas that students do not understand, taking into account their previous assessment?” Of the research subjects, 1 (0.5%) stated "Not at all", 4 (1.9%) stated " Slightly ", 32 (15.2%) stated "Moderately", 148 (70.5%) stated "Very", 25 stated "Extremely" (Table 2).

Table 3. Frequencies for the Question - Variable (3)

question (3)	frequency	percent (%)
Slightly	13	6,2
Moderately	52	24,8
Very	109	51,9
Extremely	36	17,1
Total	**210**	**100**

The third question is: "To what extent do you consider that you use a variety of ways and means (such as multimodal texts, songs, documentaries, concept maps, use of new technologies, etc.) to present the new course content in a way that is understandable to all students?" Of the research subjects, 13 (6.2%) stated "Slightly", 52 (24.8%) stated "Moderately", 109 (51.9%) stated "Very" and 36 (17.1%) stated "Extremely" (Table 3).

Table 4. Frequencies for the Question - Variable (4)

question (4)	frequency	percent (%)
Slightly	17	8,1
Moderately	68	32,4
Very	106	50,5
Extremely	19	9,0
Total	**210**	**100**

The fourth question is: "To what extent do you use differentiation of the time to complete the task for each student, such as additional help for weaker students or deepening for advanced students, lengthening the time to complete the task - exercise, etc.?" Of the research subjects, 17 (8.1%) reported "Slightly", 68 (32.4%) reported "Moderately", 106 (50.5%) reported "Very", and 19 (9%) reported "Extremely" (Table 4).

Table 5. Frequencies for the Question - Variable (5)

question (5)	frequency	percent (%)
Not at all	1	0,5
Slightly	12	5,7
Moderately	60	28,6
Very	115	54,8
Extremely	22	10,5
Total	**210**	**100**

The fifth question is: "to what extent do you use students' ideas and experiences to plan classroom activities?". Of the research subjects, 1 (0.5%) stated "Not at all", 12 (5.7%) stated "Slightly", 60 (28.6%) stated "Moderately", 115 (54.8%) stated "Very" and 22 (10.5%) stated "Extremely" (Table 5).

Table 6. Frequencies for the Question - Variable (6)

question (6)	frequency	percent (%)
Slightly	11	5,2
Moderately	64	30,5
Very	117	55,7
Extremely	18	8,6
Total	**210**	**100**

The sixth question is: "to what extent do you consider that when designing activities you take into account the different ways in which each student acquires knowledge?". Of the research subjects, 11 (5.2%) stated "Slightly", 64 (30.5%) stated "Moderately", 117 (55.7%) stated "Very" and 18 (8.6%) stated "Extremely" (Table 6).

Table 7. Frequencies for the Question - Variable (7)

question (7)	frequency	percent (%)
Slightly	12	5,7
Moderately	41	19,5
Very	126	60,0
Extremely	31	14,8
Total	**210**	**100**

The seventh question is: "To what extent do you think that DI improves students' academic performance compared to "traditional" instruction?" Of the research subjects, 12 (5.7%) stated "Slightly", 41 (19.5%) stated "Moderately", 126 (60%) stated "Very" and 31 (14.8%) stated "Extremely" (Table 7).

3.2 Standard Deviation and Means of the 7 Question – Variables

The following table (Table 8) analyses the means and standard deviations of the variable questions.

Table 8. Standard Deviation and Means of the 7 Question – Variables

Question variables	N	Minimum	Maximum	Mean	std. deviation
question (1)	210	1,00	5,00	3,68	0,757
question (2)	210	1,00	5,00	3,91	0,620
question (3)	210	1,00	5,00	3,80	0,794
question (4)	210	1,00	5,00	3,60	0,765
question (5)	210	1,00	5,00	3,69	0,754
question (6)	210	1,00	5,00	3,68	0,705
question (7)	210	1,00	5,00	3,84	0,740

Table (8) shows that in the first question the mean is 3.68 (standard deviation 0.757), i.e. close to the number (4), which is equivalent to the answer "Very". This shows that the research subjects are, on average, positive about collecting information about students' learning readiness, learning profile and interests before the start of the teaching process.

Table (8) shows that in the second question the mean is 3.91 (standard deviation 0.620), i.e.

very close to the number (4), which is equivalent to the answer "Very". This shows that the research subjects are, on average, positive in adapting the teaching of a module in areas not understood by the students, considering their previous evaluation.

Table (8) shows that in the third question the mean is 3.80 (standard deviation 0.794), i.e. very close to the number (4), which is equivalent to the answer "Very". This shows that the research subjects are, on average, positive regarding the fact that they use a variety of ways and means to present the new content of the course to make it understandable to all students.

Table (8) shows that in the fourth question the mean is 3.60 (standard deviation 0.765), i.e. close to the number (4), which is equivalent to the answer "Very". This shows that the research subjects are, on average, positive in using variety in the time of task implementation for each student.

Table (8) shows that in the fifth question the mean is 3.69 (standard deviation 0.754), i.e. close to the number (4), which is equivalent to the answer "Very". This shows that the research subjects are, on average, positive regarding using students' ideas and experiences to plan classroom activities.

Table (8) shows that in the sixth question the mean is 3.68 (standard deviation 0.705), i.e. close to the number (4), which is equivalent to the answer "Very". This shows that the research subjects are, on average, positive about the fact that when designing activities they take into account the different ways in which each student acquires knowledge.

Table (8) shows that in the seventh question the mean is 3.84 (standard deviation 0.740), i.e. very close to the number (4), which is equivalent to the answer "Very". This shows that the research subjects are, on average, positive regarding the fact that the implementation of DI improves students' academic performance compared to "traditional teaching".

4. Discussion

The analysis of the results shows that teachers' views and attitudes are positive towards the implementation of DI as a student - centred form of teaching.

In particular, in the first question the teachers' statements are positive (84.3%) since their answers are located between the statements "Moderately" and "Very" (Tables 1 and 8). These results are found through the literature review to be correlated with similar studies in which it is argued that in DI, the teacher collects information about the students' learning readiness, learning profile and interests before the beginning of the teaching process (Valianti et al, 2020; Coubergs et al., 2017; Fykaris, 2013; Gibbs & McKay, 2021; Graham et al., 2021; Gibbs & McKay, 2021; Graham et al., Koutselini & Valiandes, 2009; Panteliadou et al., 2017; Pozas et al., 2022; Sakellariou et al., 2018; Sfyroera, 2007; Tomlinson, et al., 2003; Tomlinson, 1999, 2014, 2017).

The teachers' statements in the second question are positive (82.4%) since their answers are found between the statements "Very" and "Extremely", (Tables 2 and 8). Similar results are

found in related research (Dimitriadou, 2016; Fridaki, 2009; Pozas et al., 2022; Taylor, 2015; Tomlinson, 2014,2017; Tziovara et al., 2017) where it is reported that the teacher adapts the teaching of a unit to areas that were not understood by the students taking into account their previous assessment.

The teachers' statements in the third question are positive (76.7%) since their answers are located between the statements "Moderately" and "Very" (Tables 3 and 8). These results are also found in several researchs (Coubergs et al., 2017; Dimitriadou, 2016; Kalantzis & Cope, 2012; Valiandes et al., 2018) where it is suggested that the teacher should use a variety of ways and means in presenting the new content of the course in order to make it understandable to all students.

The teachers' statements in the fourth question are positive (82.9%) since their answers are located between the statements "Moderately" and "Very" (Tables 4 and 8). The results of question (4) are in line with other research and studies (Dimitriadou, 2016; Hachfeld & Lazarides, 2021; Maulana et al., 2020; Pozas et al., 2022; Tziovara et al., 2019; Valiandes et al., 2020) where it is stated that it is necessary for the teacher in DI to use variety in the time of task implementation for each student.

The teachers' statements in the fifth question are positive (83.4%) since their answers are found between the statements "Moderately" and "Very" (Tables 5 and 8). The results of question (5) is in line with other researches in which it is claimed that the teacher during DI utilizes students' ideas and experiences to design activities in the classroom (Pozas et al., 2022; Roy et al., 2013; Sidiropoulou et al., 2023; Tomlinson, 2014, 2017).

Teachers' statements in the sixth question are positive (86.2%) since their answers are located between the statements "Moderately" and "Very" (Tables 6 and 8). The results of question (6) converge with other research (Taylor, 2015; Tomlinson, 2014, 2017; Tziovara et al., 2017) in which it is stated that in DI it is necessary for the teacher when designing activities to take into account the different ways in which each student masters knowledge.

The teachers' statements in the seventh question are positive (79.5%) since their answers are located between the statements "Moderately" and "Very" (Tables 7 and 8). The results of question (7) are similar to other researches (Bal, 2016; Bantis, 2008; D'Intino & Wang, 2021; Panteliadou, 2020; Prast et al., 2018; Karageorgou, 2022; Simpkins et al., 2009) in which it is argued that DI improves students' academic achievement compared to "traditional" instruction.

5. Conclusions

On the basis of the above data, the following main conclusions can be drawn:

a) A high percentage of teachers state that they collect information about students' learning readiness, learning profile and interests before the teaching process begins.

b) A fairly high percentage of teachers state that they adapt the teaching of a unit to areas not

understood by students taking into account their previous assessment, as well as use a variety of ways and means in presenting new content of the lesson to make it understandable to all students.

c) A high percentage of teachers state that they use students' ideas and experiences to design activities in the classroom, that in designing activities they take into account the different ways in which each student masters knowledge, as well as use variety in the time to implement work for each student.

d) A fairly high percentage of teachers state that with DI there is an improvement in students' academic performance compared to "traditional teaching".

The results of the present study show the value and usefulness of DI as a learner - centred form of teaching. However, for DI to be effectively and durably implemented in the modern classroom, it is necessary to have a modern, and flexible Curriculum in which the focus is on the learner in conjunction with (Kaldi et al., 2011; Kaldi et al., 2017; Sakellariou et al., 2018? Tomlinson, 2014, 2017). At the same time, in order for teachers to be able to effectively implement DI, it is necessary to be properly trained and supported in their efforts (Panteliadou, 2020; Koutselini, 2008; Valiandes, 2015), so that they are trained in differentiated strategies and techniques to be able to operate with openness and flexibility in the teaching and learning process to benefit the needs and interests of students. In other words, the appropriateness of the relevant training and support is necessary to be differentiated, taking into account teachers' particular areas of difficulty and hesitancy, as certified in practice, as well as factors such as the age of students and subject areas (Panteliadou, 2020).

In conclusion, it is worth noting that in the modern school it is not easy to propose and implement by all teachers the complete replacement of teacher-centred forms of teaching by learner - centred forms of teaching, such as DI. However, there is a need for a gradual shift towards more learner - centred forms of teaching and learning such as DI - which, as this research shows, is applied in a high percentage by teachers in modern classrooms (Valiandes & Neofytou, 2017). In the context of this problematic, DI as a learner - centred form of teaching should be characterised by flexibility and variety in the parameters of teaching, emphasising the different types of intelligence, the development of intrinsic motivation and attention by students, as well as the adaptation of the objects of instruction to achieve meaningful learning for all students (Dimitriadou, 2016, pp 193 - 194; Fridaki, 2009; Ioannidou - Koutselini & Pyrgiotakis, 2015; Palieraki & Koutrouba, 2021).

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