KURAM VE UYGULAMADA EĞİTİM BİLİMLERİ EDUCATIONAL SCIENCES: THEORY & PRACTICE

Received: February 17, 2015
Revision received: January 4, 2016
Accepted: April 11, 2016
OnlineFirst: August 5, 2016

www.estp.com.tr
DOI 10.12738/estp.2016.4.0011 • August 2016 • 16(4) • 1419-1451

Research Article

A Phenomenological Study of Teacher Perceptions of the Applicability of Differentiated Reading Instruction Designs in Turkey

Gülhiz Pilten[1]
Necmettin Erbakan University

Abstract

The main purpose of the present study is determining the practicability of the "Differentiated Reading Instruction Approach" in primary school grades in Turkey, in accordance with the teachers' perceptions, by considering important roles in the practice of the approach. The work-group of the present research is in phenomenology design, which is one of the qualitative research designs, formed by 17 class teachers selected via maximum variety sampling from various geographic regions of Turkey. Findings of the present research revealed that the present implementations of the teachers are far from taking students' individual differences into consideration and therefore they don't comply with the basic principles of differentiated teaching. In addition, at the end of the seminars, which included the theoretical foundations and implementation oriented samples of this approach, it was determined that most of the teachers stated that this approach cannot be implemented in Turkey. Consequently, examination of the teachers' differentiated reading teaching designs revealed that these designs were realized in a successful way that complies with the theoretical foundations of the approach in terms of content, process and production.

Keywords

Differentiated reading instruction • Differentiation • Reading implementations • Teacher perspectives • Primary grades

1 **Correspondence to:** Gülhiz Pilten (PhD), Department of Primary Education, Ahmet Keleşoglu Faculty of Education, Necmettin Erbakan University, A-330 Meram Konya 42090 Turkey. Email: gulhizp@yahoo.com.tr

Citation: Pilten, G. (2016). A phenomenological study of teacher perceptions of the applicability of differentiated reading instruction designs in Turkey. *Educational Sciences: Theory & Practice, 16,* 1419-1451.

Recently, the idea that individuals who become learners in educational settings have different features not only in terms of language and culture, but also cognitive skills, past life experiences, pre-knowledge resulting from these experiences, and the way that they, has been widely accepted in the literature of educational sciences (Huebner, 2010; Prince, 2011; Schlechty, 2009; Tomlinson, 1995, 2001; Tomlinson et al., 2003; Vygotsky, 1978).

This fact comes along with the necessity for teachers that they plan their teaching considering the differences of the students who are defined as the richness of teaching (Anderson, 2007; Palmer, 2005). Research findings show that teachers feel this necessity, and most of them consider the culture, language, economy, intelligence, motivation, etc. and related differences between students as an important part of the educational processes (Casey & Gable, 2011; Prince, 2011; Sharabi, 2009). However, examining the implementations intended to address these differences, we can observe that teachers either ignore this fact, or the plans they design involve giving less tasks for students with learning difficulties, and provide better students with more complicated tasks they probably have difficulty in doing (Gable et al., 2000). These kinds of implementations can be defined as useless or asystematic as students are assigned to a task that is more advanced, or much easier than the conceptual framework they learn. However, differentiation in education is not an approach based on "more" or "less" challenge trials. On the contrary, it is considered a process that is based on theoretical foundations related to the topic, requires systematic planning, has certain implementation principles, and required clarity (Levy, 2008).

This process, called differentiated education, is an approach that is inspired from Vygotsky's (1978) socio-cultural learning theory that asserts that learners should study in certain social and cultural contexts. Additionally, this approach was also influenced by brain-based learning principles. Some of the principles of brain-based learning theory that have influenced the differentiated education approach are as follows (Tomlinson & Kalbfleisch, 1998): (1) Safe and unthreatening learning environments support learning. (2) Students should meet new circumstances in an appropriate way, they should feel comfortable when they face new circumstances, and besides content should be neither too easy, not too difficult. (3) Students should make sense of the ideas and skills through meaningful relations. Additionally, we can claim that this approach has also been affected by theories that are learning and information-processing oriented, and based on learning and thinking styles (Dunn, 2000; Kolb, 1984; Sternberg & Williams 2002). Similarly, the multiple-intelligence theory coined by Gardner (1993) is one of the theories that influenced the differentiation in teaching's emphasis of individual differences between learners. In addition, there is another theory that influenced differentiation in teaching. It is Maslow's (1987) theory of hierarchy of needs, which asserts that students can only learn when their basic needs are met, and as their needs are met students can get to more advanced

levels of learning. Tomlinson (1995) who were inspired from the theories mentioned above, and organized differentiated education approach as an efficient and systematic approach that is based on arranging content, process and product for each learner, was also one of the most important contributors to this approach. At this point, it would be beneficial to define the concept of the "Differentiated Education Approach" studied in the present research, and its uses in educational environments in detail.

In the related literature, the differentiated education approach is defined as a process in which teachers plan their teaching considering the different needs of different learners, not arranging the quantitative structures of the tasks assigned to students, but making qualitative analyses to associate the structure of the task and students' needs (Hall et al., 2004). In addition, in differentiated education approach, teachers need to plan different approaches intended at the main elements of teaching program such as; content, teaching process, and product; and try to make students more active in the process. Other features of this approach are that students sometimes work individually, and sometimes in groups or as a whole class; and the harmony in these working styles is provided through constant monitoring, and arrangements (Gregory & Chapman, 2002; Heacox 2002). The conceptual framework of differentiation can be seen in Figure1 (Hall et al., 2004).

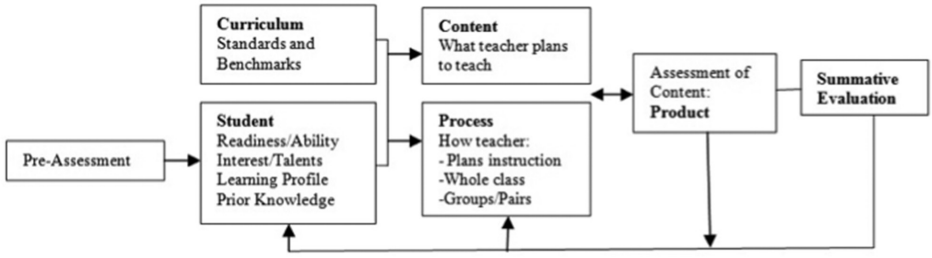

Figure 1. Conceptual framework for differentiation of education.

As can be seen in Figure 1, the differentiation of education process is formed by the interaction of various elements. Teachers can gather data required to define the sources of differentiation (level of readiness, interests, learning profiles etc.) through many formal and informal data gathering methods such as *pre-assessment*. Asking verbal questions, making students create written journals, applying standard tests, making what you know, what you want you learn, what you learnt charts, organizing group discussions and brain storming sessions can provide important and rich data resources for defining existing schemas of students (Bransford et al., 2000).

The concept of *readiness* as one of the resources of differentiation refers to the balance between the skills students already have and the skills required for understanding the subject (Bush, 2006). Differentiation according to readiness is based on detection of the dynamic domains where students feel comfortable due to the knowledge and skills they have.

Another variable that sources differentiation in education is student *interest*. Learning designed according to students' interests provides an environment in which students can choose the way they learn. In such a learning environment, students can take part in groups formed according to their own choices, or they can complete the tasks individually. For instance, some students prefer writing reports on some subjects, while some prefer creating descriptive diagrams. Another student may make experiments on the subject, and research what results they can find in which circumstances. This way, students are provided with the option of choosing how to present their knowledge. Teachers take part as the organizer of these choices (Koeze, 2007).

The concept of a *learning profile* includes learning styles, strategies, and preferences about the studying environment of the students (Tomlinson, 1995). A learning environment created in accordance with the learning profiles of the students shows regard to the ways students process knowledge and ideas best, learning styles and intelligence domains students prefer, and cultural or gender factors affecting the learning environment. Teachers should define how their students learn: Students learns better through bottom-up/top-down processes; they enjoy working in groups/individually/in quiet environments; they prefer written statements/oral statements etc. In such a learning environment, along with teachers, students are aware of their strengths and weaknesses; which is important in terms of making correct decisions for themselves (Koeze, 2007).

Figure 1 also emphasizes that teachers can realize differentiation with at least three learning elements. These changes can be made according to the readiness levels, interests and learning profiles of the students obtained through pre-assessment. These learning elements can be defined as follows (Tomlinson, 2000):

1. For primary school students, the materials should be selected according to the reading levels and interests of the students in the work groups in order to differentiate the *content* (Allington, 2005; O'Connor et al., 2002). Some of the implementations for differentiating the content are (Tomlinson, 2000): (a) use of various reading materials suitable for different levels of students; (b) use of audio materials for the texts; (c) use of word lists created for different levels of students; (d) both visual and auditory presentation of the ideas; (e) paired/reciprocal reading; (f) interventions with small groups through activities that develop thinking for students who have learning difficulties.

2. Forming reading centers where students can conduct reading activities individually or in groups, developing fluent reading through individual reading, and developing reading comprehension strategies and pronunciation skills, are among the methods used to differentiate the *process* (Clay, 1991). Besides, some of the implementations for reading activities are (Tomlinson, 2000): (a) use of graded

activities in which all learners can work with the same understanding and skills but use different levels of proficiency for solutions; (b) forming interest centers which enable students to research sub-topics related to the main topic; (c) making students create personal diaries; (d) interventions in the process or participating in the processes of students having difficulties; (e) re-organizing the process for students who have learning difficulties so that they can complete the task, or for advanced students to do further research on the topic.

3. Some of the activities that can be conducted in primary schools to differentiate the *product* are: (a) giving students a chance to choose the way to show their learning; (b) monitoring and assessing student skills through graded assessment scales; (c) allowing students to make decisions on whether to work in groups or individually for their products; (d) encouraging students to create their authentic products.

One of the most sensitive points for the differentiation of education is the inclusion of the *curriculum* in the process (Gregory, 2009). The studies in the literature emphasize that the curriculum should be organized in accordance with the needs of each student, and this is an important and difficult step of the process (Tomlinson, 1995, 2000, 2003). The concept of a parallel curriculum ensues at this point. A parallel curriculum focuses on the three important features of a teaching program: links, implementations, and definitions (Gregory, 2009). Differentiation of these three important features should be done by the teacher, taking the individuals in the classroom environment into consideration (Baglieri & Knopf, 2004). Given that every class is formed by individuals with different characteristics, we can claim that a standard differentiation is not possible in education. From this perspective, the design of the differentiated education, the implementation of all elements, and adapting these into curriculum are the responsibilities of the teachers. Thus, recent studies on the subject matter Tomlinson (2004) define differentiated education as an approach in which teachers are responsible for developing an efficient curriculum and learning process. In this approach, "Teachers can differentiate the learning process in accordance with the learning profiles of the students for one lesson, while they can differentiate the process according to the readiness levels of the products for another lesson." At this point, teachers are the ones who are responsible for decision-making. Related studies in the literature emphasize that teachers are an important part of this approach. An example of this fact is a definition of this approach as the "process in which teachers meet the needs of students" (Tomlinson & Allen, 2000). Then, teachers are one of the most important data resources for the studies on the implementation of this approach in different cultures, on students with different learning profiles, in classrooms with various physical or emotional features. Indeed, most of the related studies in the literature try to reveal the ideas of the teachers on theory and application. According to the findings of these studies, some of the difficulties teachers have during the

implementation of this approach are as follows (Al Otaiba et al., 2005; Calabrese et al., 2005; Edwards et al., 2006; George & Alexander, 2003; Margolis & Nagel, 2006; Sharabi 2009; Wormeli, 2005): (1) the population of the classrooms; (2) the gap between the expected work and time; (3) rarity of the resources and the difficulties in pre-assessment; (4) insufficient professional development; (5) insufficient training from the teacher training institutions on the approach; (6) insufficient support from the school administration; (7) insufficient support from parents; (8) difficulties in adaptation of the curriculum (9) redundancy of the students with learning difficulties.

In addition, some researchers report that teachers have insufficient or incorrect knowledge of the approach (Carolan & Guinn, 2007; Sharabi 2009; Tomlinson, 2005; Wormeli, 2005).

There are also some studies which report positive remarks from the teachers on the applicability of the differentiation of education approach, in addition to the negative remarks. Some of these are (Sharabi 2009; Tomlinson, 2000): (1) constant assessment and feedback/support problems accordingly; (2) being student-centered; (3) providing time advantage when implemented correctly; (4) increasing achievement; (5) positive effects of students with learning difficulties; (6) leading parents to support education.

In addition to the studies above, there are some studies in the literature that try to define teacher remarks on the application of the approach from different perspectives (teachers of different courses, experiences of teachers of different grades, teachers from different countries, and regions etc.).

One of the remarkable statements from the literature is "the variability of the students in the classrooms has been as great as it has never been" (Tomlinson, 2000). This statement places a great emphasis on the necessity of differentiation in education. Thus, the increase in the number of studies on the differentiation of education, and that the theories based on the individual differences are accepted as valid paradigms in many countries, are developments which are in agreement with this statement. The efficacy of this approach has been proven by many experimental studies, and it has been used in many countries. Therefore, studying the implementation of the "Differentiation in Education Approach" in Turkey is of utmost importance. Accordingly, the purpose of the present research is defining teacher remarks about the approach considering their importance in the implementation process. The studies in the literature mentioned above don't include Turkish teachers. Therefore, it is important to find the ideas of the implementers before making decisions on the implementation of the approach in reading instruction in Turkey. From this perspective, the purpose of the present research is revealing teachers' perceptions and theoretical knowledge on the individual differences, and differentiation of reading instruction, some Turkey-specific conditions such as data collection methods to form a basis for differentiation,

the convenience of the implementation of the approach in Turkey, and it is considered a scientific resource for the implementation of the approach in Turkey.

Concordantly, the purpose of the present research is evaluating the realizability of the objectives and implementation of differentiated reading instruction from the perspectives of teachers.

The research question of the study was put forward as "What do class teachers think about the applicability of differentiated reading instruction designs in Turkey?" Answers to the following questions were sought in the study in order to analyze this problem:

(i) How do teachers currently perceive and apply the differentiation of reading instructions and how do they evaluate their practices?

(ii) How do teachers find the applicability of the approach in reading instruction after the theoretical and practical "Seminar on Differentiated Reading Instruction Designs" was provided for them and various design experiments they conducted?

(iii) What can be said about the differentiated reading instruction designs that were designed by teachers after the seminars and which do they deem to be applicable under Turkey's conditions?

Method

The study was executed by using the "phenomenology" pattern, which is defined to be the most effective patterns. It is one of the qualitative study patterns and aims to reveal and interpret the perspectives and individual perceptions about a specific phenomenon (Yıldırım & Şimşek, 2005). It is thought that the fact that phenomenology allows the researcher to put forth judgments, prejudices, and assumptions better compared to other qualitative study patterns, ensures that the teachers' perspective on the approach concerned is understood more deeply (Finlay, 2008). The concept which is focused on in this study is the teachers' perspective on the approach in question, as it is mentioned above. To this end, it was endeavored to define teachers' perspectives on this phenomenon in different dimensions through new scenarios formed by the researcher (giving seminars on the approach, directing teachers to apply the approach etc.).

A phenomenological research approach was appropriate to use in this study for various reasons. First of all, the phenomenological approach allows the researcher's objective examination of the phenomena coupled with values and practice where "lived experiences are performed or carried out in the function of knowledge" (Husserl, 1989). A phenomenological methodology was appropriate for this study because the researcher was able to "understand the meaning that participants attribute to those actions- their thoughts, feelings, beliefs, values, and assumptive worlds; the

researcher, therefore, needs to understand the deeper perspectives captured through face-to-face interaction". In this study, observing the differentiated instruction approach as the phenomena may have also allowed the researcher opportunities to explore teacher perceptions and lived experiences to reveal teachers' implementation of the differentiated instruction approach.

The phenomenological approach also allows for opportunities to observe experiences of people where knowledge about a particular phenomenon is scarce and the researcher collaborates with the participant to glean perspectives that may later provide insight (Donalek, 2004). These features of the approach were one of the main reasons for determining the method of this research. In the data collecting process, firstly, lived experiences of the teacher was observed in terms of the differentiated reading instruction approach and its components. After determining implementations, the researcher collaborates with the participants to develop an understanding of the differentiation reading instruction approach through seminars. Finally, the applicability of the phenomenon in Turkey was investigated. At this part of the study, phenomenology allowed the researcher to obtain an account directly from teachers trained in using differentiated instruction.

Study Group

The study was conducted in the Spring term of the 2012-2013 academic year. Study data were collected through applications with 17 school teachers working in 17 provinces selected randomly from 7 different geographic regions of Turkey. All teachers are employed in public primary schools of the Turkish Ministry of National Education which are located in the provincial centers. In selection of 17 teachers, maximum diversity sampling was used, as opposed to other sampling methods. The main purpose in maximum diversity sampling is to reflect the diversity of individuals who can be a party to the problem to the maximum degree possible (Yıldırım & Simsek, 2005). In this study the main reason for selecting maximum diversity sampling was to create a wide framework for a specific phenomenon based on the consensus of the school teachers with different features. An effort was made to ensure diversity in teacher characteristics such as gender, seniority, graduation, and geographic regions. Demographic data on teachers contained in this Study Group has been shown in Table 1 in line with these properties.

Table 1
Characteristics of Teachers in the Study Group

Characteristics		*f*	*%*
Gender	Female	8	47
	Male	9	53
Faculty Graduated	Education Faculty	9	52.4
	Faculty of Science and Letters	6	35.29
	Others	2	11.77
Occupational Experience	1-5 years	4	29.42
	6-10 years	3	17.64
	11-15 years	4	23.53
	16-20 years	3	17.64
	20 years and over	3	11.77
Geographic Regions Where Teachers Work	Marmara Region	2	11.77
	Aegean Region	2	11.77
	Mediterranean Region	2	11.77
	Central Anatolia Region	3	17.64
	Black Sea Region	2	11.77
	Eastern Anatolia Region	3	17.64
	South-Eastern Anatolia Region	3	17.64

Data Collection Tools

In the study, "Interview Form 1," which consisted of 13 open-ended questions and was designed as semi-structured, was used in determining class teachers' perceptions, types of applications of differentiation of reading instruction, and evaluations about these applications. To this end, 13 open-ended questions were prepared in three main dimensions; (1) questions related to the implementations of pre-reading activities: the criteria teachers use to choose reading materials and reading activities; source of the texts and activities used for reading studies; (2) questions related with the implementation during reading activities: teachers' grouping of students in the learning environment; the methods, techniques and approaches teachers prefer**;** the criteria teachers use to determine the content of teaching activities; measurement applications teachers employ; (3) questions related to the teachers' conceptual knowledge of differentiated reading instruction: definitions with regard to differentiated reading instruction; definitions of the basic concepts of the approach.

"Interview Form 2" contained five open-ended questions and was prepared in a semi-structured form. It was also used with the same purpose, and was given after teachers had various design experiences and were familiar with theoretical and practical aspects from attending "Seminars on Differentiated Reading Instruction Designs." To this end, five open-ended questions were prepared in two main dimensions; (1) questions related to the applicability of the differentiated reading instruction approach in Turkey: views with regard to the applicability of the approach in Turkey and reasons; (2) questions related to limitations and advantages of the applicability of the approach in Turkey.

As with any qualitative study, the researcher is the primary instrument in the data collection (Merriam and Associates, 2002), and this study was no exception. Due to the nature of the researcher-participant relationship, it was necessary to establish and clarify specific boundaries and processes that were used for each participating teacher. Methods used for establishing a researcher-participant working relationship included establishing appropriate boundaries for conducting research, and maintaining confidentiality by the researcher.

Moreover, the researcher, through the methodology of this study, gained approval for conducting the study from the principal, gathered participants, gained their consent, conducted interviews, organized seminars on differentiated reading instruction designs, analyzed the participants' designs, transcribed and coded the data, analyzed the data, and drew conclusions.

Data Collection

Four-stages of planning were performed in collection of data:

First of all, the researchers asked all teachers to set a date and hour to conduct a preliminary interview before starting the application of interview forms. Preliminary video interviews were performed online according to the calendar set by teachers. Information was given about the content of these interviews, introduction and presentation of the study's purpose, and the confidentiality of conclusions and where the conclusions are going to be used. It was also intended to create an environment of confidence between researchers and teachers in this process. In addition to this, a new calendar for essential applications of the study (interview one and two, seminar study, design studies) was also drawn up. Preliminary interviews were completed over one week and 20 minutes were given for each teacher.

In the second stage, "Interview Form 2" was prepared in order to determine teachers' current perceptions, applications of the differentiation of instruction, and their evaluation of the applications. Interviews, which were carried out through online video, lasted two weeks in total and were, on average, 40 minutes long for each teacher.

In the third stage, a seminar schedule that aimed at giving teachers practical and theoretical information about differentiated instruction designs was presented through an online video conference, and teachers were asked to prepare a differentiated instruction program for reading instruction which they would implement at a grade level of their own choice. It was intended to present the theoretical basis of the approach, conceptual framework, and examples for applications to teachers in the 90-minute seminar schedule, which was prepared after examining the relevant literature. The seminar was also supplemented by videos of application examples that contain many

differentiation examples gathered by the researcher. Questions from teachers were answered through discussion for about 20 minutes at the end of the seminar. Following the seminars, the reading instruction plans that were prepared by teachers who were asked to design differentiated instruction environments were structured by way of giving the forms prepared by the researcher to teachers. In this way, it was ensured that teachers discussed the same headings in their plans. Following the seminar and lesson plan implementations, interviews were conducted again using "Interview Form 2" on the applicability of the approach in Turkey's conditions. These interviews lasted one week in total and took 20 minutes on average for each teacher.

Finally, lesson plans prepared by teachers were analyzed and their perspectives on the application of differentiated instruction designs were studied. The headings which the teachers were supposed to handle in their lesson plans were given to them and no time restrictions were applied for them to make plans. Teachers completed this task in 30 minutes on average. During this period, a video connection was made via the internet. This application was materialized before implementation of "Interview Form 2" and lasted one week in total.

The researcher always conducted interviews with teachers one-to-one. Interviews were conducted via internet video and outside of lesson periods. Teachers were first made comfortable through 10-minute informal chats. The questions stage was only moved on to when it was decided teachers were comfortable.

Data Analysis

Data obtained through interviews was analyzed through the descriptive analysis method. The primary reason for selecting this method was that the conceptual structure can be set out clearly beforehand. During coding of the data, the researchers tried to examine the obtained data, separate it into meaningful parts, and find what conceptual meaning each part had. These parts, which had meaningful consistency internally, were named by the researchers. This way, researchers tried to find a concept that would best define the meaning of each part best during coding. In the present research, the method used was "Coding in accordance with the concepts obtained from data," because there weren't any code lists related to the subject of the present research in the literature.

Analysis of the study was conducted in line with the process supervision strategy, which is appropriate and deemed significant in ensuring the reliability and validity of analysis by Twycross and Shields (2005). The steps of analysis for the process supervision strategy used in the study are given below: (1) Data obtained from digital records was turned into written texts; (2) Texts obtained were checked again in line with original records and corrections; (3) Data was encoded by using analysis criteria. At the

stage of encoding data, the researchers tried to divide this data into meaningful sections and to find out what each of them meant conceptually. These sections, which exhibited meaningful consistency within themselves, were named by the researchers. In this way, the researchers tried to find an expression that can describe the meaning in that section best while encoding a meaningful section among the data they have obtained. In this study, the method chosen was "encoding performed according to the concepts taken from data." This was because no code list could be obtained from present literature that was pertinent to the study's subject; (4) The data gathered in relation to each section was analyzed again and encodings were checked; (5) The conclusions reached were compared with the original texts obtained from subjects; (6) The data obtained and the reasons for the comments reached were reviewed with researchers who specialized in their field and who work in different fields; (7) The types and quantities of information obtained through non-specialized and specialized researchers were examined.

Validity and Reliability

A conceptive framework was formed in relation to the matter while developing an interview form in order to boost internal validity of the study. The questions were prepared according to the literature, and they were presented to three experts in the field for their opinions. After necessary arrangements, the questions took their final forms. In addition to this, encodings were formed so that they had such a narrow scope that non-pertinent concepts are excluded and in such a wide scope that pertinent concepts are included. An effort was made so that the study process and the activities conducted in this period were explained in detail, in order to increase the external validity of the study. In this context, the study model, study group, data collection tools, data collection process, data analysis, and interpretation were defined in detail. In order to increase the reliability of the present research, we tried to present the complete findings. With this purpose, the method used by the researchers included detailed quotations. This method is considered by the researchers to increase the reliability in qualitative research. Therefore, the interpretations and descriptive statements of the teachers were included in the present research (Twycross & Shields, 2005). Some example of statements obtained from the participants were included in report. While choosing these example statements, researchers tried to choose those which would reflect the answers of the teachers in general.

"Triangulation" was attempted for researcher diversification, which takes co-examination of any incident by different researchers as a basis in order to increase reliability of the study (Roberts & Priest, 2006). To this end, people who have general knowledge about the study subject and who are specialized in qualitative research methods were asked to examine the study in various dimensions, and thus, it was targeted to take measures to improve reliability of the study by ensuring harmony

among independent observers. Interview data was read and analyzed by two academics apart from the researcher. Matters on which "consensus" was reached and those which caused "dissensus" were discussed for analyses of both the researcher and other specialists, and necessary arrangements were made. The reliability formula [Reliability = Consensus / (Consensus + Dissensus)], which was suggested by Miles and Huberman (1994), was used so as to calculate reliability of the study. Reliability of the study was found as 93.22%. The study was deemed reliable since the reliability coefficient calculated was over 70% (Miles & Huberman, 1994). The validity of the study was also increased by incorporating opinions of specialists.

In order to evaluate the reliability of the data collection process, before the real interviews, researchers conducted demo interviews with three teachers who were not included in the participants. During this demo process, the researchers focused on the comprehensibility of the questions, and the attitudes/interests/needs etc. of the participants. The data collection process was shaped in accordance with the experience obtained from this pilot implementation, and this way researchers hoped to increase reliability. On the other hand, during the actual interviews, the participants were told the interviews were conducted for research, that they wouldn't be graded or judged in any way, and so they were asked to answer without any anxiety or fear. This way, researchers hoped to make participants comfortable before the interviews, and increase the reliability of the data collection process.

While reporting the obtained data, the identities of the teachers were kept confidential. Each teacher was given a code, so that the readers could have information about basic characteristics of the teachers. For instance, the code (K15E-S) meant the gender of the teacher was female, she had 15-years experience teaching, graduated from the faculty of education, and the initial of her name was "S".

Results

The thematic groups formed for sub-problems of the study and their sub groups are as follows:

The first thematic group developed was based on the literature on the first sub-problem of the study, identified as *applications for differentiation of reading instruction*. Sub-themes of this theme group are: "material and content" (Table 2 and 3), "methods of forming study groups" (Table 4 and 5), "Method" (Table 6 and 7), "Measurement and evaluation process" (Table 8) and "Curriculum" (Table 9).

Table 2
The Criteria Teachers Use to Choose Reading Materials and Reading Activities

Criteria for Determining Material and Activity Content	The most important criterion		Among criteria	
	f	%	*f*	%
Availability-accessibility,	7	42.18	11	64.71
Learners' level of readiness	3	17.65	10	58.82
Appropriateness to the socio-economic-cultural structure of the school environment	5	29.41	7	41.18
Curriculum	2	11.76	6	35.29
Characteristics of the topic	-	-	1	5.88
Text books	-	-	1	5.88

When Table 2 is examined, it is seen that teachers consider easy accessibility and availability of the reading materials as the most important criteria in selecting reading instruction materials and activity content (42.18%). However, it can be said that the readiness level of students (17.65%) and curriculum (11.76%) are the least considered criteria among the most important criteria for this arrangement. When we examine the column "Among Criteria" found in Table 2, it is observed that most of the teachers (64.71%) deem accessibility of material and the content as a criterion that effects their preferences. Given the data put forward in Table 2, it can be asserted that very few of the teachers in the study group of the study considered the readiness of students, which is deemed to be one of the main elements of the process of differentiating instruction and data on properties of the matter in selecting instruction materials and their content in literature. This can be interpreted as indicating the teachers in the study group were not conducting planning or application for differentiation of instruction in the process of identifying material and content. The statements of teacher (K12E-S) and teacher (E3E-M) are in agreement with this interpretation:

> I think that our main problem is time. For this reason I prefer to use the materials or reading texts which I already have. In this way I could spend more time on education. (K12E-S)

> In the region where I work as a teacher, I don't have many opportunities. I have to be content with what I have. I know that there are a lot of more effective materials but I couldn't reach them. (E3E-M)

Table 3
Source of the Texts and Activities Used for Reading Studies

Type and Content of the Materials used	Most frequently used		Among the ones used	
	f	%	*f*	%
Internet based texts and activities	13	76.47	15	88.24
Texts provided by the school management	-	-	2	11.76
Texts created by the teacher	-	-	5	29.41
Texts already found in the class	1	5.88	8	47.06
Texts from textbooks	3	17.65	4	23.53
Reading/activity books other than text books	-	-	3	17.65

When Table 3, which shows data on where teachers obtained the texts and activity content that they use in reading instruction period, is examined it is seen that the texts which are used by a large majority of teachers most frequently are internet-sourced (76.47%). It was again found that a very large majority of teachers used internet-sourced contents in their lessons, if not most frequently (88.24%). This supports the easy-accessibility criterion of teachers in determining the reading material and activity content discussed above (Table 2). Again, the fact that teachers preferred the texts which were previously available in the classroom frequently (47.06%) can be interpreted as teachers opting for pre-prepared/pre-gathered texts and content that were prepared for other groups or that were internet-sourced apart from the element mentioned above. In addition to this, it was found that teachers used texts and content other than textbooks (11.76%) and reading/activity books other than textbooks (17.65%) at a very low level. This can be interpreted as either the fact that the school administration does not provide sufficient sources, or that teachers do not find the sources provided qualitatively adequate. The statements of teacher (K13E-M) and teacher (E5E-K) are in agreement with this interpretation:

> I couldn't receive any material support from the administration of the school I work at, for the courses I have been giving. As teachers, we need to create texts and activities through our own means. (K13E-M)

> The library of the school I work at is insufficient. It is hard to find any materials that fit the objectives of the course I give. Instead, I try to find materials from the internet. (E5E-K)

Table 4 contains data on whether teachers in the study group of the research preferred primary sources for group formation, along with the principle of flexible study groups, which is defined as an important point in the creation of differentiated reading instruction designs in literature, or the degree to which these are preferred.

Table 4
Teachers' Views with Regard to Effective Grouping of Students for Reading Studies

Student Grouping	Distribution of the number of teachers in terms of the duration they use specific grouping (%)								Total	
	0-25%		26-50%		51-75%		76-100%			
	f	%	*f*	%	*f*	%	*f*	%	*f*	%
Whole class	-	-	1	5.88	10	58.82	3	17.65	14	82.35
Large groups*	-	-	1	5.88	5	29.41	4	23.53	10	58.82
Small groups**	-	-	1	5.88	2	11.76	1	5.88	4	23.53
Individual study	-	-	2	11.76	1	5.88	-	-	3	17.65
Arranging according to content/ Instruction process	-	-	-	-	3	17.65	-	-	3	17.65

* Groups obtained when the class is divided into 2 or 3 groups.
** Groups of 4 or 5.

When Table 4 is taken into consideration, it is seen that a majority of teachers preferred working with the whole class in reading activities (82.35%). It was revealed that more than half of the teachers utilized this working structure in over half of the lesson periods (58.82%). It is seen in Table 4 that 10 of the teachers (58.82%) in the study group preferred working with large groups. It can be indicated that a great majority of teachers who prefer working with large groups opt for this method in over half of the lesson period. Working with small groups (23.53%), individual work (17.65%) and arrangement of groups according to text content/activity structure (17.65%) can be considered as the least preferred study groups. When it is considered that especially the approaches of small groups and group formation according to content/activity structure, among others, are the main work environments for differentiated instruction designs, this situation can be interpreted as indicating that teachers are not making any arrangements in their lessons in relation to the approach concerned. In addition to this, it can be said that regardless of the study group approach adopted by teachers, they pursue this method in over half of their lesson periods and they have no application for differentiation of study groups within lesson periods (Table 4). This can be interpreted as evidence that flexible group structures, which is one of differentiated instruction sources, have not been utilized. The statements of teacher (K12E-S) about the subject summarize the thoughts of the teachers who prefer to work with the class as a whole.

> At the beginning of the reading activities, I ask the whole class to read silently first. Then, I pick some students among the whole class to read the text. For instance, a student starts to read, then, I stop that student and ask someone else to go on reading. This way, 4-5 students read a text. Then, I go on with reading activities with the whole class. I ask comprehension questions related to the text. During most of the course, the class works as a whole. (K12E-S)

Table 5
Teachers' Grouping of Students in the Learning Environment

Grouping Styles		The most preferred		Among the ones preferred	
		f	%	*f*	%
Grouping based on Teacher preference	Homogenous groups	4	23.53	5	29.41
	Heterogeneous groups	2	17.65	3	17.65
	Pre-determined groups	8	47.06	9	52.94
Grouping based on Teacher preference	Who would you like to work with?	1	5.88	3	17.65
	Let the successful ones choose their group?	2	11.76	2	11.76

When Table 5 is examined, it is seen that the great majority of teachers prefer pre-formed (47.06%), homogeneous (23.53%) and heterogeneous (17.65%) study groups determined by themselves. Very few teachers adopt group forming methods based on student choices and allow either all students to determine who they want to work with (5.88%), or successful students to form their own groups (11.76%). Again, Table 5 suggests that teachers used the pre-formed groups that they created themselves more

frequently (52.94%). The statements of the teacher (E16F-I) summarize the ideas of the teachers in general, and are in agreement with this interpretation.

> Beforehand, I supported many of my students working together. But, there were some inconsistencies. So, at the beginning of the semester, I created groups with the students who could get along well. This way, my students could work cooperatively in all lessons. (E16F-I)

The above statement can be interpreted to mean that teachers do not take into consideration the principle to form different groups for different instruction statuses by taking into account individual differences of students, which is one of the main principles of differentiated instruction, during usage of different content and materials in the establishment of study groups. The instruction methods and techniques already used by teachers in reading techniques before they are informed about any approach are shown in Table 6.

Table 6
The Methods, Techniques and Approaches Teachers Prefer

Instruction Methods Techniques	Most frequently used ones		Among the ones used	
	f	%	*f*	%
Question-answer	15	88.24	13	76.47
Whole class discussion	1	5.88	5	29.41
Cooperative learning	-	-w	4	23.53
Problem based learning	1	5.88	4	23.53
Project based instruction	-	-	2	11.76

When Table 6 is examined, it is seen that the instruction technique most frequently used by teachers is the question-answer technique (88.24%). There are also quite a lot of teachers who indicated that they used this technique in their lessons, if not most frequently (76.47%). Cooperative learning (23.53%), problem-based learning (23.53%) and project-based learning (11.76%) approaches are the least-used, although they are used. The statements of the teacher (K6E-M) can be a good example for the importance of the question-answer technique, and its use in the classroom.

> I think comprehension is the most important part of the reading process. I can find out whether students comprehend from their answers to my questions. Because of this, I ask questions after reading. (K6E-M)

The conclusions above can be interpreted to indicate that teachers do not place enough importance on instruction based on such individual differences as students' intelligence areas or learning styles. This indicates that factors such as the learning styles of students, learning profiles, interests and abilities that point to individual differences and that constitute the real sources of differentiation of reading instruction are overlooked. Determination criteria of which activities to be used by teachers in this process were analyzed in order to better understand the reading instruction process (Table 7).

Table 7
The Criteria Teachers Use to Determine the Content of Teaching Activities

Criteria for Determining Activities	The most important		Among criteria	
	f	%	*f*	%
Topic content	7	42.18	10	58.82
Students pre-knowledge, interests and needs	1	5.88	2	11.76
Opportunities for the environment and School	3	16.65	14	82.35
Text books and curriculum	6	35.29	14	82.35

Data written in the column between criteria in Table 7 shows that teachers determine the activities mostly by consulting text books and curriculum (82.35%). It is also seen that subject content (58.82%) and facilities available in the environment and school (82.35%) are the other criteria which determine activities. Background knowledge, and the interests and necessities of students, can be considered the least important criteria for teachers. Only 2 of the 17 teachers contained in the study group of the study (11.76%) find individual differences of students important in activity determination. These results can be interpreted as meaning teachers are not sufficiently reflecting the individual differences among students in the instructional processes. It can be asserted that the content of the lesson, the stipulations put forth by the Ministry of National Education, and effects of the environment, have superseded individual differences among students. The statements of teachers (K11E-L) and (E3E-M) are in agreement with this interpretation:

> Most of my students come from families of low-income. For this reason, I don't expect any support from families and school administration for the activities. I can't ask for any more materials other than the course book. I can only conduct the activities in the course book. (K11E-L)

> I think the most important problem for a teacher is keeping up with the curriculum. So, I can only use the activities in the course books. (E3E-M)

Data obtained on practices of teachers for the measurement and evaluation process, one of the important elements of differentiated reading instruction designs, are shown in Table 8-9.

Table 8
Measurement Applications Teachers Employ

Measurement Time	Measurement time	The aim of measurement	Regarded to be the most important		Among the ones used	
			f	%	*f*	%
Before Reading	Question-Answer	To determine Pre-knowledge	2	11.76	-	-
While Reading	Question-Answer	To determine learning deficiencies	2	11.76	-	-
	Observation		-	-	1	5.88
After Reading	Question-Answer	Assessment of reading comprehension	2	11.76	6	35.29
	Multiple Choice		13	76.47	14	82.35
	True False		1	5.88	5	29.41

It is seen in Table 8 that only 11.76% of teachers conducted measurement before reading activity and all of these teachers used the question-answer technique as the measurement method, hoping to gain background knowledge of students by using this technique. This can be interpreted to mean that differentiation of reading instruction was not used by most of the teachers in the study group and individual differences of students were overlooked to a great extent as a result of the measurements made before reading. Table 8 shows that teachers made little measurements during the reading activity. It was found that teachers performed this measurement through observation during the reading activity (5.88%) and by using the question-answer method (11.76%) in order to reveal learning deficiencies, which can only address one dimension of differentiation. It can again be said according to Table 8 that the measurement tool mostly used by teachers after reading is multiple-choice tests (82.35%). When statements of teachers were examined, it was found that they used multiple-choice tests mostly in the measurement process of reading comprehension. The fact that teachers in the study group do not opt for the measurement process for differentiation of instruction during the reading activity is evidence of instruction differentiation practices not being brought to the forefront in the classrooms of these teachers. The statements of the teacher (E16F-İ) summarize the general opinions of the teachers related with the time for assessment and evaluation, methods used, and the purpose of the assessment tool:

> I give my students tests after reading and activities in order to find out whether they comprehend the text. The book-sets I use include some tests for each text. I use these tests. I decide whether my students comprehend the texts in accordance with the scores my students get on these tests. (E16F-İ)

With regard to the first sub-problem, the second thematic group developed based on literature constitutes the *conceptive understandings of teachers about differentiated reading instruction design*. Sub-themes of this are "definition of approach" and "definitions about basic concepts of the approach."

Table 9
Definitions with Regard to Differentiated Reading Instruction

Definitions	*f*	*%*
I have no idea	10	58.82
Different presentation techniques for different students	2	11.76
Instruction according to Multiple Intelligence Areas	2	11.76
Differentiation of instruction process according to individualistic differences	1	5.88
Presenting the subject again if it is not understood	1	5.88
Activeness of the learner in the learning process	1	5.88

When Table 9 is examined, it is seen that more than half of the teachers included in the study group have never heard of the approach before (58.82%). 11.76% of the teachers who stated that they heard about the approach define it as "instruction by different presentation techniques for each student," while 11.76% of them define it as "instruction according to multiple intelligence areas." Only 1 teacher (5.88%) suggested a definition like that found in literature, which is "differentiating the instruction process in line with individual differences." Table 9 can be interpreted to mean that teachers cannot define the approach with all its aspects conceptually. Furthermore, it can also be deducted that very few of the teachers touch upon content of the approach, even if a little, by associating it with multiple intelligence and by emphasizing individual differences. The statements of teachers (K6E-M) and (E3E-M) are in agreement with this interpretation:

> I have never heard of it before. But it may refer to teaching students who have difficulties in understanding in some other way. (K6E-M)

> It may refer to conducting reading instruction in accordance with the intelligence types of students. In this way students may understand better. (E3E-M)

This demonstrated the need to put forth evaluations for basic concepts that constitute the approach in determining the conceptual understandings of teachers about the approach concerned (Table 10).

Table 10
Definitions of the Basic Concepts of the Approach

Concept	Basis of the Definition	*f*	%
Individual Differences	Socio-economic levels of the learners are different.	2	11.76
	Abilities of the learners are different.	11	64.70
	Students have different interests.	1	5.88
	Students have different needs.	2	11.76
	Students have different learning styles.	1	5.88
Instruction Planning	Each subject can be taught in a different way.	8	47.05
	Each student is taught differently.	3	17.64
	Different content is to be designed for each region.	5	29.41
	Different materials are to be used for each student.	1	5.88
Instruction Process	All learning styles are to be supported in teaching.	4	23.52
	Different teaching methods are to be used together in teaching.	13	76.47
Assessment of Instruction	Assessment of whether learning has been achieved or not.	13	76.46
	Assessment to pass on to the next teaching stage.	3	17.64
	Determination of learning deficiencies	1	5.88

According to Table 10, the element on which teachers in the study group place greatest importance in their definition of "individual differences" is the difference between abilities of the students (64.70%). Differences in terms of socio-economic levels of students (11.76%), their interests (5.88%), needs (11.76%) and learning styles (5.88%) were emphasized very lightly. The statements of the teacher (E16F-İ) are in agreement with this finding:

> I think individual difference refers to the idea that each student has different skills which need to be developed. (E16F-İ)

Making different plans in line with the subject content is deemed important by at least half of the teachers in "*planning of instruction*" (47.05%). Different instruction depending on students (17.64%), different material usage (5.88%), and differentiation according to the region (29.41%), can be considered as factors that are found less important in planning of instruction. The statements of the teacher (K11E-L) can explain this evaluation:

> I think, the most important element of planning the teaching process is bringing the subject to the forefront. (K11E-L)

Teachers emphasize the necessity to use different instruction methods together to a large extent while defining the concept of "instruction process." It can be deduced that teachers find it important to use different instruction methods in their conceptual definitions. However, the above-written data about the instruction methods and techniques used by teachers in the instruction process shows that this conceptual understanding is not included in the application process (Table 6). The statements of teacher (K6E-M) form a good example for the teachers who think that the most important element in defining the teaching process is using different teaching methods together:

> We need to use different teaching methods together during the lessons. I generally use project work, but I ask for students' ideas during this process, I create in-class discussions, and expect students to work together. (K6E-M)

Again, according to Table 10, definitions of teachers regarding evaluation of instruction are focused mainly on whether learning is achieved or not (76.46%). The conclusion that an evaluation for any structuring and differentiation, especially before and during instruction, is not important to teachers, can indicate that conceptual understandings of teachers do not agree with the theoretical basics of differentiated reading instruction. The statements of the teacher *(E5E-K)* are in agreement with this finding:

> I make assessments. I evaluate whether my students comprehend what they read. I always monitor their achievement in the lesson. I assign home work to the students who have difficulties in comprehension. (E5E-K)

The thematic group determined for the second sub-problem is "*evaluations of teachers about applicability of differentiated instruction design created by taking Turkey's conditions into account.*" Sub-themes of this theme group were identified as "limitations of the approach" (Table 12) and "advantages of the approach" (Table 13).

Table 11
Views with Regard to Applicability of the Approach in Turkey

Applicability	*f*	%
Yes	6	35.29
No	9	52.94
Partially	2	11.76

According to Table 11, nearly half of the teachers stated that the approach of differentiation of reading instruction cannot be applied under Turkey's conditions (52.94%). It was found that again nearly half of the teachers thought that the approach can completely (35.29%) or partially (11.76%) be applied under Turkey's conditions. Evaluations of teachers as to why the approach cannot be applied or can partially be applied were presented in Table 12.

Table 12
Limitations with Regard to Applicability of the Approach in Turkey

Problem		*f*	%
Instruction programs	Content areas are very dense	10	58.82
	Time Problem	9	52.94
	Lack of available content and material	5	29.41
Class structure	Multi-grade classes*	7	41.17
	The size of the class is very large	15	88.24
	Students who do not speak Turkish	8	47.05
Teacher Education	Deficiencies in teacher education	6	35.29
Teacher problems	Teachers who are appointed to different schools.	11	64.70
	Overall education policy of the country	6	35.29
	Temporarily appointed teachers**	9	52.94
Education partners' participation in the education process	Inefficacy of the communication among teacher-family-administration	12	70.58
	School Administration's understanding of education	7	41.17
	Very inefficient family support	14	82.35
	Various expectations of inspectors	13	76.47

*Classes where students of several or whole levels are taught together
** Teachers who are temporarily appointed for one year and who are not permanent staff

According to Table 12, teachers list intensity of content areas of curriculum (58.82%) and lack of time (52.94%), crowdedness of classrooms (88.24%), insufficiency in teacher training, continuous moving of teachers (64.70%), insufficiency of teacher-family-school administration interaction (70.58%) and family support (82.35%) as the most important reasons as to why the approach concerned cannot be applied in Turkey's conditions. In addition to this, schools which provide instruction in combined classrooms (41.17%), the high number of students who do not speak Turkish in some regions (47.05%), paid teacher assignments (52.94%) and expectations of inspectors (76.47%) were listed as restrictions that are peculiar to Turkey by teachers. Statements of some teachers are given below in order to define the limitations.

I think it is hard in this educational system. It is especially difficult in the under-developed regions such as the ones where I work. The most important problem is opportunities, time limitation and language problem above all. (E18D-K)

I think it is hard in Turkey due to the dense population. The main reasons are population and, that education is considered as just a policy by the managers of the country. There is a great gap between the expectations of the education inspectors and the objectives of teaching. (K2E-T)

I teach at a multi-grade class, which means I already try to differentiate teaching for different grades, and it is much more difficult for me to differentiate education within the same grade. (E12F-T)

Evaluations of a total of 8 teachers that express applicability or partial applicability of the approach about advantages of the approach under Turkey's conditions can be found in Table 13.

Table 13
Advantageous aspects of the approach in Turkey

Advantages	*f*	*%*
Provides active learning environment	4	50
Student centered	3	37.5
Increases student motivation	2	25
Increases academic achievement	4	50
Effective approach for multi-grade classes	3	37.5
Tallies with curriculum	1	12.5

According to Table 13, half (50%) of 8 teachers who found the approach applicable under Turkey's conditions (47.05%) among 17 teachers in the study group of the study indicated that the differentiated reading instruction approach would be beneficial as they thought that the approach would "support active learning approach" and "increase academic achievement." Furthermore, it is seen that the approach being "student centred" and "effective in integration classes" are seen as advantages by teachers (37.5%). In addition to these, "the fact that the approach is foreseen to increase student motivation" and "harmony of the approach with curriculum" (12.5%) were considered as advantages of the approach by teachers. Statements of some teachers are given below in order to define advantages more clearly:

I think, active teaching, and multiple-intelligence approaches can be effective in teaching. I think these are more organized versions of what we already do in our classrooms. (E12E-K)

I think, we can increase motivation by providing students with opportunities to choose their own texts, and appreciating their ideas. (E3E-T)

The third sub-problem of the study is "what can be said about differentiated reading instruction designs designed by teachers after the seminars and which they find applicable under Turkey's conditions?" This sub-problem aims to use the specific designs formed by teachers following the seminars in evaluation of applicable differentiation methods under Turkey's conditions.

The thematic group developed on the basis of literature on the third sub-problem was determined as "*applications about differentiated instruction design.*" Sub-themes of this theme group are "Introduction" (Figure 2), "differentiation of content and effects" (Figure 3), and "differentiation of the product" (Figure 4).

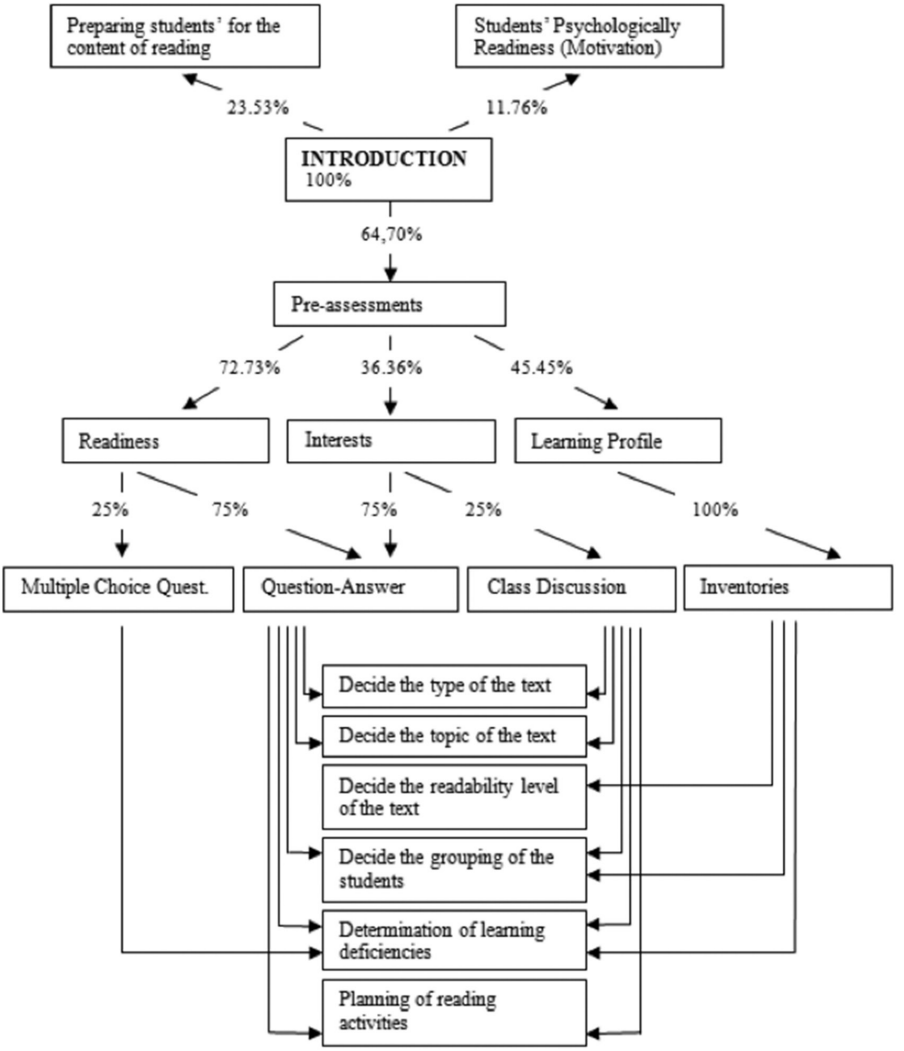

Figure 2. Teachers' introduction designs for reading activities.

It is seen in Figure 2 that all teachers carried out introduction activities before reading activities. It was found that some these teachers started reading activities in order to prepare students for reading and the subject to be read psychologically (11.76%) while some others aimed to prepare students for reading content (23.53%). Figure 2 also shows that the great majority of teachers make preliminary evaluations such as introduction activities (64.70%). Most of the teachers conducting preliminary evaluations before reading make the evaluation in order to determine the readiness level of students (72.73%). These teachers mostly use the question-answer technique in determining the readiness level of students (75%), while fewer make use of multiple-choice tests (25%). Teachers who try to reveal interests of students through preliminary evaluations (36.36%) use the question-answer technique (75%) to this end while using classroom discussions to a lesser extent (25%). All of the teachers conducting preliminary evaluations for the purpose of determining learning profiles of students use inventories to this end. Teachers using multiple choice questions for determination of readiness perform this process so as to identify learning deficiencies of students. On the other hand, teachers using the question-answer technique and

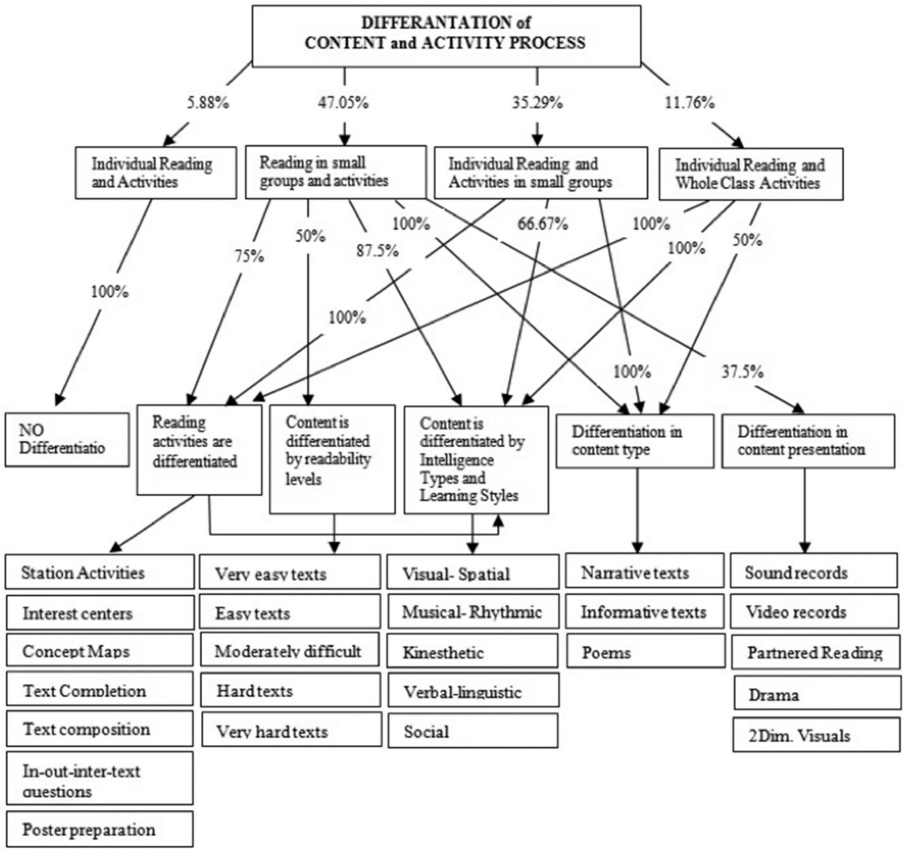

Figure 3. Teachers' designs with regard to dif. of content and activity processing reading activities.

classroom discussions to reveal students' interests aim to decide on the text type to be studied on, the structure of study groups, subject of the text, identify learning deficiencies, and plan reading activities through these methods. On the other part, teachers using inventories in determining learning profiles aim to decide on the readability level of the text and reveal learning deficiencies in this way.

According to Figure 3, the study structure preferred most frequently by teachers in the study group are readings and activities carried out with small groups (47.05%). The second most frequently-preferred ones are individual readings, and activities carried out with small groups (35.29%). Only one of the teachers planned to use instruction environments where individual readings and activities were carried out (5.88%), while 2 of them preferred individual readings and collective activities of the whole class (11.76%).

It was found that teachers who preferred individual reading and activities did not develop any design for differentiation of the content and activity process.

On the other hand, it was seen that all teachers designing reading and activities with small groups performed differentiation in text type according to readiness, interests, and profiles of students and that they used narrative and informative texts and poems in small groups to this end. Again, a great majority of these teachers structured content of the reading text (87.5%) and reading activities (75%) taking students' intelligence areas and learning profiles into account. In this sense, teachers arrange text and activity contents\ in line with visual-spatial, musical-rhythmic, physical-kinesthetic, oral-linguistic and social intelligence areas. Moreover, half of the teachers who prefer to work with small groups (50%) achieved differentiation by achieving parallelism between reading levels of students and readability levels of students in determining the texts to be presented to groups.

On the other hand, these teachers differentiated the activity process by using station works, formation of interest centers, concept maps, text completion, text formation, question asking, and poster preparation. It was seen that a part of the teachers who preferred to work with small groups differentiated the presentation of the content and used audio-video records, 2-dimensional visuals, paired reading techniques, and drama activities (37.5%).

According to Figure 3, all teachers who planned to carry out the activities with small groups and the reading activities individually preferred to materialize differentiation in reading activities. This differentiation is made in the form of activities again by generally using intelligence areas and learning profiles criteria. Moreover, all of these teachers designed differentiations according to text type. It was observed that all of the teachers who planned activities with the whole class

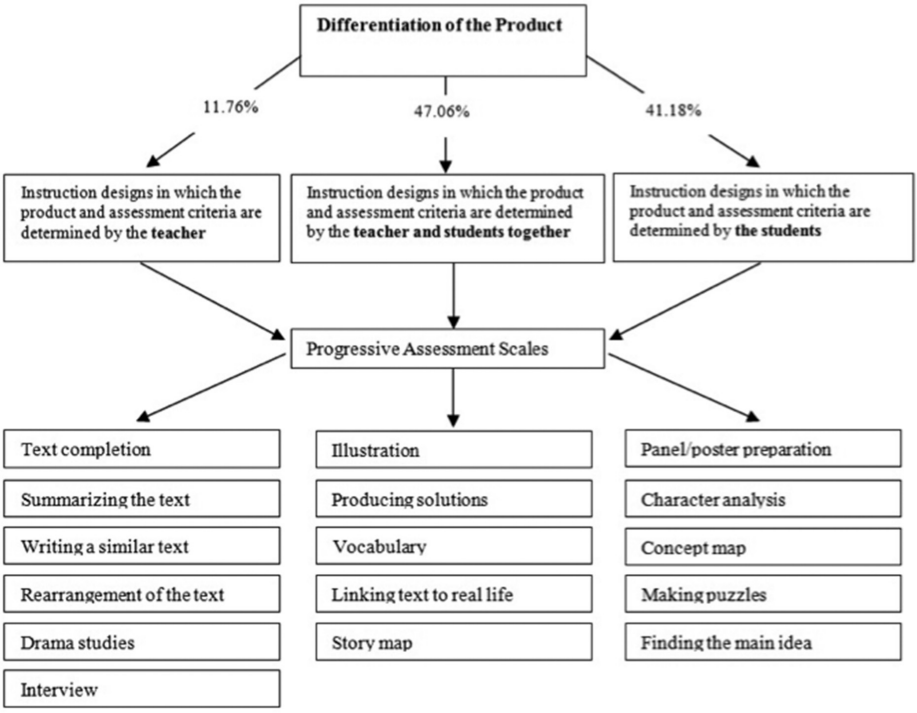

Figure 4. Teachers' designs with regard to product differentiation in reading activities.

after individual readings differentiated the activities through intelligence areas and learning profiles like the teachers who plan activities with small groups at the end of individual reading. It was found that half of the teachers resorted to differentiating content type.

According to Figure 4, teachers included in the study group mostly preferred the instruction designs where the product and evaluation criteria are determined by the teacher and student together (47.06%). 41.18% of teachers planned instruction designs where the product and evaluation criteria were determined by students. Again in Figure 4, only 2 teachers preferred (11.76%) the instruction designs where the product and the evaluation criteria were identified by the teacher. Moreover, it was found that regardless of who designed the product and criteria, all of the teachers planned using graduated evaluation scales in evaluation of products. In addition to this, it was found that teachers used the 16 learning types presented in Figure 4 and differentiated the learning product in all three cases.

Discussion

Study findings revealed that almost none of the teachers in the study group materialized an instruction planning and application based on individual differences

in their teaching experiences before they were given conceptual and applied seminars on "Differentiated Reading Instruction Designs." Furthermore, very few teachers could define the concept of differentiated reading instruction and some basic concepts that formed this concept accurately and completely. These conclusions exhibit resemblance with the conclusion that there are some deficiencies and misunderstandings in the theoretical knowledge and practice of teachers contained in the study groups of different studies (Carolan & Guinn, 2007; Sharabi 2009; Tomlinson, 2005; Wormeli, 2005).

It was seen that more than half of the teachers stated that this approach could not be applied under Turkey's conditions after the conceptual and practical seminars on "Differentiated Reading Instruction Designs" were provided for them, and various design experiences they had when their evaluations about the applicability of the approach were examined. The reasons for this inapplicability were indicated as time limitations, structure of instruction programs due to intensity of content areas, crowdedness of classrooms, classroom structures due to combined classes, deficiencies in teacher training, teacher problems arising from instruction policies of the country, and lack of participation of instruction stakeholders (family, school administration etc.) in the instruction process. Among the above mentioned reasons, crowdedness of classrooms, inconsistency of the instruction program in terms of content and time, lack of pre-service and in-service training, and insufficient support from stakeholders, are also found in the literature as causes of inapplicability (Al Otaiba et al., 2005; Calabrese et al., 2005; Edwards et al., 2006; George & Alexander, 2003; Margolis & Nagel, 2006; Sharabi 2009; Wormeli, 2005). Among the answers given by teachers, combined classroom structures and paid teacher policy can be evaluated as restrictions peculiar to Turkey. In addition, conclusions related to high number of students suffering learning difficulties and the hardship of applying the program in the approach, which are deemed as restrictions by some teachers in the study group of different studies, were not included in findings of this study.

On the other hand, almost half of the teachers in the study group indicated that application of the approach under Turkey's conditions has some advantages and, in that sense, they can completely or partially be implemented. Teachers stated that they considered the approach applicable as it provides active learning environments, is student-centered, will effect student motivation and academic achievement positively, and is appropriate for integration classes and in terms of structure of the instruction program. Among these findings, the approach being student-centered, increasing success, and being appropriate for integration classes support the literature (Sharabi 2009; Tomlinson, 2000). The fact that it allows for continuous evaluation and feedback, which were mentioned as the advantages of the approach by teachers in the literature, are not included in findings of this study. It was also seen that the

difficulty of the program to harmonize with differentiation and to be applied in classes with learning difficulties, which were deemed to be restrictions of the approach for application by teachers in literature, were considered as advantages for application by some teachers in the study group. It can be deduced that instruction programs in Turkey are more convenient for application of the approach concerned in comparison with the instruction programs mentioned in the other studies.

It was seen that all of the teachers in the study group planned to include an "introduction" into reading activities when patterns for differentiation of the reading process following the seminars were examined. It was found that this introduction was aimed at determining the readiness level of students in the patterns designed by most of the teachers. It was identified that there were also some teachers - among those including an "introduction" section in their pattern designs - who conducted preliminary evaluations in order to determine students' interests and learning profiles. This applies to all differentiation sources which the preliminary evaluation process targets in the literature on the approach concerned (Bransford et al., 2000).

Teachers in the study group plan to use multiple-choice tests and the question-answer technique in determining the readiness level of students, the question-answer technique as well as the data obtained in classroom discussions in determining interests of students, and various inventories in determining their learning profiles, as the preliminary evaluation tool in this process. These conclusions can seen as a consequence of the fact that teachers use many informal and formal data collection techniques in the patterns which they plan to execute and they support the relevant literature (Hall et al., 2004; Tomlinson, 2000). However, it was seen that teachers in the study group do not prefer "introduction" activities for explanation of charts by students such as "what do you know?", "what do you want to learn?", "what have you learned?" charts, and written diary activities which focus on metacognition stated in literature in pattern designs (Bransford et al., 2000).

In addition to this, it was revealed that teachers in the study group aimed to decide the text type and subject to be used in reading activities as well as readability levels through the preliminary evaluations within the scope of "introduction" activities, and that they planned to use preliminary evaluation data focused on the students' readiness level, interests and learning profiles in determining the structure of study groups and learning deficiencies of students in relation to the subject. This is in parallel with the basic theoretical structure of the differentiated instruction approach (Hall et al., 2004; Langa & Yost, 2007).

Majority of the teachers in the working group planned to carry out "reading and activities with small groups" and "individual reading and activities with small groups" as the work structure of the class in the process of differentiation of reading

activities and content in the patterns they formed. It was found that these teachers planned differentiation by taking reading level, learning profiles, content, readability levels, intelligence areas, learning styles, and text types into account by working with the class structures specified. In addition to this, teachers planned to make differentiation in relation to presentation of text content to students. This serves as proof that expressions about the importance of working with small groups, which are frequently emphasized in the theoretical structure about the instruction approach, and in applicability of the approach concerned, are also deemed to be applicable under Turkey's conditions (Hall et al., 2004). Moreover, the designs which allow the students to study sometimes individually or sometimes as groups can be considered as another situation which is deemed significant in literature (Langa & Yost, 2007).

It was found that almost half of the teachers cooperated with students in determination of the product and standards about the product in reading activities when pattern plans of teachers in the study group for differentiation of the product were examined. It was revealed that all of the teachers planned to use progressive evaluation scales in evaluation of the product, and that almost all of them planned to work with students in setting the criteria in these scales. This can be interpreted as the principle of planning in line with individual differences, which is at the core of the differentiated instruction approach, being embraced by teachers (Koeze, 2007; Langa & Yost, 2007; Tomlinson, 2000).

The findings of the present research can be summarized as follows:

Findings related to the present implementations of the teachers who participated in the present research show that, teachers don't plan their teaching process systematically in accordance with the "differentiated reading instruction". Additionally, the teachers don't have the necessary conceptual knowledge in order to carry out the implementation of this approach.

Moreover, most of the teachers thought the "Differentiated Reading Instruction" couldn't be implemented in Turkey, after they were informed about the approach. The reasons for the teachers' opinions on the impracticability of the approach are: the limited time and the intensity of the content areas, the inconvenience of the classroom structures because of crowded and multi-grade classes, the inadequacies in teacher education, teacher problems because of the Turkish educational policies, and inadequacies in the participation of education shareholders (family, school management etc.) in the teaching process.

Finally, teachers' own teaching designs revealed that teachers use the differentiation of content, process, and products required by the "Differentiated Reading Instruction."

The following suggestions can be provided in consideration of the findings of the present research:

- Seminars or in-service training programs should be organized in order to inform teachers about the Differentiated Reading Instruction Approach and its implementations.

- - Defining students' readiness levels, needs, individual differences during the implementation of the Differentiated Reading Approach, is a difficult process. Because of this, teachers should be provided with the equipment and professional support required for this process. Teachers should be provided with guidance for implementation of the scales used to define individual differences.

- Teachers should be provided with content appropriate for students with individual differences. It seems difficult for teachers to obtain these materials in Turkey. With this purpose in mind, schools can be provided with access to databases providing appropriate content.

Further research should be conducted on the implementation of the "Differentiated Reading Instruction" in different lessons and grade, and its applicability and effects on the students. For example, the applicability of differentiated instruction in mathematics, social studies, or science lessons; its effects on the students' reading comprehension, problems solving, or high order thinking skills, can be studied as research topics.

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