

Differentiated Instruction in Practice: Primary Teachers' Views on the Century of Türkiye Education Model

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Abstract

The aim of this study is to evaluate the differentiated instruction approach implemented at the first-grade level within the scope of the Century of Türkiye Education Model (CTEM), based on the perspectives of primary school teachers. The study examines the classroom reflections of the support and enrichment dimension structured under the CTEM. Designed as a case study, one of the qualitative research designs, the study involved 10 primary school teachers, who had at least one student with special educational needs (SEN) in their classroom, and were working in public schools during the 2024-2025 academic year. The data were collected through semi-structured interviews and analyzed using the descriptive analysis method. The findings were presented within the framework of the following themes: content structure, instructional practices, assessment and evaluation processes, and support and enrichment practices. The teachers stated that they generally viewed the simplification of the content positively; however, they also emphasized that the new arrangements in Turkish, Life Sciences, and Mathematics curricula led to some challenges in students' learning processes. Activity-based approaches were generally supported by the teachers; however, challenges related to the implementation process—such as crowded classrooms and lack of materials—were also highlighted. Although the diversity of assessment and evaluation practices increased, teachers pointed out certain limitations regarding time management and ease of implementation. While the theoretical framework for support and enrichment practices appeared to be strong, there were deficiencies in implementation support and availability of materials. In conclusion, although the differentiated instruction framework within the CTEM offers an inclusive theoretical structure, the conditions for practical implementation indicate a need for further improvement. In order to support the implementation of the model, it may be beneficial to provide guidance on differentiated content and offer material support in addition to teacher training.

Keywords:

Century of Türkiye Education Model, Inclusion, Differentiation, Support, Enrichment, Students With Special Educational Needs.



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Introduction

Educational curricula are periodically revised or updated in accordance with the changing needs of society and developments in science and technology. The main purpose of these revisions is to enable individuals to acquire the knowledge, skills, and attitudes required by the contemporary era (Ornstein & Hunkins, 2018). In Türkiye, based on a similar rationale, the Century of Türkiye Education Model (CTEM) has been developed. This model adopts an approach that focuses not only on students' academic achievement but also on their multidimensional development through values, skills, and competencies (Ministry of National Education [MoNE], 2023).

In recent years, curriculum design has increasingly focused on addressing individual differences. Programs designed by taking into account students' developmental characteristics, learning pace, interests, and socio-cultural backgrounds aim to make the learning process more meaningful and accessible (Ornstein & Hunkins, 2018; Tomlinson, 2017). In this context, students with special educational needs (SEN) constitute one of the groups with additional needs in educational settings (Florian & Beaton, 2018). The presence of students who differ from their peers in terms of developmental, cognitive, physical, or sensory characteristics necessitates the development of curricula based on inclusive principles (UNESCO, 2024; Mueller, 2021). Therefore, every program that centers individual differences should also ensure the active participation of students with SEN in learning environments.

The active involvement of students with SEN in the learning process should not be limited to out-of-class support practices. To ensure their direct and continuous participation, it is essential to implement differentiated instruction within classroom practices (Florian & Beaton, 2018; Kupers et al., 2023). In previous curricula in Türkiye, educational support for students with SEN was typically provided individually and outside the classroom (MoNE, 2018). However, the CTEM reconsiders this process and marks a significant step toward establishing a theoretical foundation for differentiated instruction. With this model, greater emphasis has been placed on a holistic teaching approach to encourage active participation among students with diverse needs (MoNE, 2023). Accordingly, for inclusive practices to be carried out effectively, it is important that differentiated instruction is implemented systematically and with proper planning (Kupers et al., 2023).

Differentiated instruction refers to the planning and implementation of the teaching process based on students' individual characteristics, interests, readiness levels, and learning styles (Florian & Beaton, 2018). Within

the scope of the CTEM, this concept is approached as an adaptive and responsive teaching method tailored to individual differences (MoNE, 2023). The classroom application of this understanding yields positive results for both students with SEN and their teachers. For students, differentiated instruction enhances academic achievement, strengthens their sense of self-efficacy, and supports learning motivation. Studies also indicate that it helps teachers develop individualized, student-centered classroom activities (Kupers et al., 2023; Musalmina et al., 2024; Strogilos, 2018). The CTEM emphasizes differentiated instruction as a core component of classroom practices through two primary dimensions: "enrichment" and "support" (MoNE, 2023). In doing so, it aims to ensure the active involvement of students with various developmental characteristics, including those with SEN, in the learning process.

Support Dimension

The support dimension primarily intends to ensure the effective participation of students with SEN—particularly those with learning difficulties, intellectual disabilities, attention deficit and hyperactivity disorder (ADHD), autism spectrum disorder, and hearing or visual impairments—in educational processes. In this context, the support dimension of the CTEM is structured around four core dimensions: content, process, product, and learning environment sub-dimension. Each sub-dimension aims to support the direct and holistic participation of students with various disabilities in classroom learning processes (MoNE, 2023).

The content sub-dimension emphasizes adapting and diversifying instructional materials according to students' developmental levels and individual needs. Within this scope, priority is given to the use of diverse digital and visual materials such as audiobooks, subtitled videos, visual cues, and symbols (MoNE, 2023). Considering the challenges students with SEN may face in making sense of the content, these materials support their comprehension and promote active engagement in learning (Strogilos, 2018; Meyer, Rose, & Gordon, 2014; Tomlinson, 2017). The process sub-dimension involves adaptable instructional practices planned in alignment with students' characteristics and learning needs. Suggested strategies include individualized goals, gamification, and peer-interaction-based methods (MoNE, 2023, 2025). This approach particularly supports the learning and participation of students with SEN (Bhat, 2023; Kupers et al., 2023). The product sub-dimension reflects an assessment approach that enables students to demonstrate their knowledge and skills in multiple ways while developing awareness of their own learning. Accordingly, it is recommended that assessment tools and techniques be diversified

through projects, presentations, portfolios, posters, and digital products (MoNE, 2023). This sub-dimension aims to provide an environment in which students with SEN can express themselves in ways that match their individual characteristics (Bhat, 2023; Florian & Beaton, 2018; Strogilos, 2018). Completing the framework, the learning environment sub-dimension focuses on addressing students' diverse needs. It promotes physical accessibility through tools such as screen readers, special keyboards, and ergonomic classroom furniture, while reducing distractions to support focus and learning (Meyer, Rose, & Gordon, 2014; MoNE, 2023; Tomlinson, 2017). These adjustments help ensure the active, independent, and continuous participation of students with SEN, thereby enhancing the quality of inclusive education (Bhat, 2023; Strogilos, 2018).

In this context, the support dimension in the CTEM offers a holistic and systematic framework to increase the participation of students with SEN in classroom learning. Structured around four core sub-dimensions takes into account students' individual traits and requirements. Through the diversification of instructional materials, the adaptability of instruction, the variety of assessment approaches, and accessible physical arrangements, the support dimension aims to strengthen both academic development and students' social participation and motivation (Florian & Black-Hawkins, 2011; Tomlinson, 2017)

Enrichment Dimension

The enrichment dimension aims to enhance the engagement of gifted students in learning experiences that foster their individual potential and support the development of academic and higher-order thinking skills. The CTEM incorporates activities related to creative thinking, problem-solving, and project-based learning. Similar to the support dimension, the enrichment dimension is also structured around content, process, product, and learning environment sub-dimensions (MoNE, 2023).

The content sub-dimension promotes the use of advanced and enriched materials that allow students to go beyond their current levels of knowledge and skill (Akyol, Çakıroğlu, & Kuruyer, 2017; Kurnaz, 2025). Within this scope, the CTEM features interdisciplinary themes, open-ended questions, advanced resources, and texts that foster high-level cognitive processes (MoNE, 2023). These instructional elements aim to develop gifted students' skills in analysis, synthesis, and evaluation (Kaya, Mertol, Turhan, Araz, & Uçar, 2022; Lo & Feng, 2020). In addition, the process sub-dimension focuses on learning that is discovery-based, student-led, and grounded in productive tasks (Tomlinson, 2017). In the CTEM, practices such as problem-based learning, project development, independent research, and learning-centered activities are emphasized (MoNE, 2023). These processes aim to support students

in becoming active leaders and designers of their own learning experiences (Antonio & Prudente, 2024; Lo & Feng, 2020). Moreover, the product sub-dimension is structured to allow students to create original, high-level outputs based on their individual interests, strengths, and learning processes. Through differentiated outcomes, students demonstrate mastery not only of academic content but also of creativity, autonomy, and critical thinking, reflecting their engagement in enriched learning processes (MoNE, 2023). Finally, the learning environment sub-dimension encourages enriched learning corners, research areas, project studios, and flexible, tech-supported spaces tailored to students' interests and levels (MoNE, 2023). These environments enhance students' independence, productivity, and motivation to learn (Firman & Sandiarsa, 2024; Kariippanon, Cliff, Lancaster, Okely, & Parrish, 2019).

CTEM presents a comprehensive framework designed to meet the needs of both gifted students and those with SEN through differentiated and individualized teaching strategies (MoNE, 2023). However, the successful implementation of this framework depends not only on the articulation of its principles but also on their systematic application in educational contexts (Kupers et al., 2023; Meyer, Rose, & Gordon, 2014;). Challenges such as crowded classrooms, limited resources, and time constraints in Turkish schools can make it more difficult for teachers to apply these practices effectively (Deveci & Aykaç, 2019; Yaman, 2010). As a result, gifted students may be unable to fully utilize their potential, and students with SEN may not receive adequate support (Kupers et al., 2023).

Research suggests that teachers tend to organize instruction around the overall level of the class, which may result in limited responsiveness to individual differences (Reis & Renzulli, 2010; Tomlinson, 2017). Therefore, it is essential that teachers not only understand the general principles of a new curriculum but also develop the knowledge and skills to address the unique characteristics and needs of students with SEN (Florian, 2014; Hanini Anne & Mohd Rashid, 2024). Implementation success depends heavily on a teacher's ability to plan, adapt, and execute instructional strategies effectively (Kupers et al., 2023). While expanding in-service training is a key step, it is important that the content of such training addresses classroom challenges and student diversity (Özdemir, 2021). The flexible structures proposed by the CTEM aim to establish a responsive instructional approach that addresses the deep learning needs of gifted students and the accessibility and support needs of students with SEN. However, the effectiveness of this structure is closely linked to teacher competencies, physical environments, and implementation support. Although there are studies examining teacher perspectives in general (Duyul et al., 2025), particularly in relation

to curriculum implementation (Yurdakal, 2024) and values education (Taşkın, 2025) within the CTEM, there is still a lack of research focusing on special education and inclusive education contexts. This gap highlights the originality and contribution of the present study in addressing these underexplored dimensions.

Accordingly, there is a need for studies that explore teachers' experiences with differentiation practices during the early years of CTEM implementation. Particularly at the first-grade level—in which instructional adaptations are critical—examining teachers' classroom experiences with the CTEM can help reveal how the model is reflected in classroom practices and highlight its strengths and areas for improvement. This study aims to examine primary school teachers' views on the support and enrichment modules of the CTEM's differentiation approach.

In this context, the study aims to answer the following research questions:

1. What are first-grade teachers' general views on the CTEM?
2. What are first-grade teachers' views on the differentiation module of the CTEM?
 - a) What are their views on the support dimension?
 - b) What are their views on the enrichment dimension?

Method

Research Design

This study was conducted as a case study, one of the qualitative research designs. A case study is a qualitative method that allows for the in-depth exploration of a bounded system within a specific context (Creswell, 2013; Yin, 2014). In this regard, the study focused on a particular situation, namely the classroom reflections of the differentiated instruction approach structured in the first-grade curriculum of CTEM, with special attention to the support and enrichment dimensions from teachers' perspectives.

Participants

The participants of this study were teachers working in public schools across various provinces of Türkiye during the 2024-2025 academic year, and each of them had at least one student with SEN in their classroom. Participants were selected using criterion sampling (Creswell, 2013). Accordingly, the inclusion criteria required teachers to be teaching at the first-grade level and to be working with students who have diverse learning needs. First-grade teachers were specifically chosen because the CTEM was introduced exclusively at this level in primary schools during the

2024-2025 academic year. Participation in the study was voluntary, and the data collection process began after both verbal and written informed consent were obtained in accordance with ethical guidelines.

Table 1
Participant Demographics

Teacher Code	Years of Experience	Special Education Training Received*	Number of SEN Students	Type of Need
T1	19	1	2	Intellectual disability and speech disorder (1); Autism spectrum disorder (1)
T2	21	3	3	Giftedness (1); Language and speech disorder (2)
T3	19	1-2	2	Learning disability (1); Mild intellectual disability (1)
T4	25	3	3	Learning disability (1); Severe intellectual disability (1); ADHD (1)
T5	4	3	1	Mild intellectual disability (1)
T6	27	1	3	Autism spectrum disorder (1); Autism spectrum disorder and learning disability (1); Cerebral palsy (1)
T7	27	4	8	Giftedness (8)
T8	25	1-2	2	Mild intellectual disability (1); Mild intellectual disability and language-speech disorder (1)
T9	19	3	4	Cerebral palsy and severe intellectual disability (1); Hearing impairment (1); Autism spectrum disorder (1); ADHD (1)
T10	26	3	2	Language and speech disorder (1); Mild intellectual disability (1)

* 1 = In-service training, 2 = Courses, 3 = Undergraduate, 4 = Does not remember. Note. ADHD = Attention Deficit and Hyperactivity Disorder; SEN = Special Educational Needs.

As shown in Table 1, a total of ten teachers participated in the study. In the classrooms of these teachers, students with SEN—including language and speech disorders, hearing impairments, intellectual disabilities, autism spectrum disorder, and giftedness—were enrolled. The teachers' professional experience ranged from 4 to 27 years. In addition, all teachers participated in a three-day in-service training program prior to the implementation of CTEM.

Data Collection

To align with the purpose of the study, a semi-structured interview form was employed. The form was designed to capture teachers' experiences

related to the classroom reflections of differentiated instruction principles outlined within CTEM. The interview questions were developed based on relevant literature and official CTEM guideline documents. Content validity was ensured through expert review. Prior to the main data collection, a pilot study was conducted to evaluate the clarity and practicality of the interview form. Based on the feedback obtained, necessary revisions were made, and the form was finalized. For example, the interview form included questions such as: "How many students are there in your classroom, and what are the diagnoses of your inclusion students, what are your opinions about the CTEM, and what challenges have you experienced in implementing differentiated instruction, and what are your suggestions for addressing them?"

Data was collected between February and April 2025. Interviews were conducted online with each teacher individually, and audio recordings were obtained with participants' consent. Each session lasted approximately 25 to 55 minutes. Before the interviews, participants were informed about the aim of the study, assured that the data would be used solely for scientific purposes, and their verbal and written consent was obtained.

Data Analysis

Qualitative data analysis often involves an inductive approach in which themes and subthemes are derived directly from the data rather than imposed a priori, ensuring that findings remain closely tied to participants' perspectives (Creswell & Poth, 2018; Thomas, 2006). To enhance the trustworthiness of the analysis, multiple researchers are recommended for coding, followed by procedures to reach consensus (Elo et al., 2014; Nowell et al., 2017). In line with these principles, the audio recordings in this study were

transcribed verbatim and analyzed using descriptive analysis. The data was processed with MAXQDA software. Three researchers independently coded the data and subsequently reached agreement on the themes and subthemes through comparative analysis.

Trustworthiness

To ensure the credibility of the study, several strategies were adopted to enhance trustworthiness during data collection and analysis. The inclusion of participants from different provinces, with varying professional backgrounds and classroom profiles, contributed to contextual diversity and strengthened the transferability of the findings. The interview form was shaped through expert consultation and revised based on feedback to ensure content validity. During analysis, interview data were transcribed and independently coded by three researchers. Codes were compared and reconciled through consensus to minimize interpretative bias and enhance data reliability. All participants joined voluntarily, were briefed about the study, and provided informed consent. Furthermore, the data were anonymized in accordance with Türkiye's Personal Data Protection Law No. 6698, ensuring confidentiality and full compliance with ethical standards. These procedures collectively supported the trustworthiness and ethical rigor of the research process.

Findings

This study presents the findings obtained from teachers' opinions regarding the differentiated instruction approach within the scope of CTEM. The themes and subthemes that emerged from the analysis are organized under four dimensions. The main codes frequently mentioned by the participants are summarized in Table 2.

Tablo 2
Themes, Sub-Themes, and Key Codes Emerging from the Data

Mean Team	Sub-themes	Codes
Content Framework	Turkish Course	Simplification of learning outcomes, reduced content load, difficult texts, above-level topics, challenges with sound groups
	Life Studies Course	Balanced content, simplified content
	Mathematics Course	Rapid topic transitions, improper sequencing (subtraction before addition mastery), abstract "mental addition" too early
Teaching-Learning Practices	Activity Design	Diversity of activities, increased student engagement
	Technology Integration	Use of EBA, limited scope of digital content, need for alternative platforms
	Physical Environment	Infrastructure problems, crowded classrooms
Assessment and Evaluation	Diversified Assessment	Performance tasks, observation-based evaluations
	Implementation Challenges	Observation scales time-consuming; difficulty in crowded classrooms; challenges in skill- and process-based assessments
Support and Enrichment	Support for SEN	Limited materials/activities for SEN; limited QR code activities; need for tailored books and resources; crowded classrooms prevent one-on-one support.
	Enrichment for Gifted	Limited in-class enrichment, "waiting period" for gifted students, reliance on support rooms instead of in-class differentiation

As summarized in Table 2, this study identified four overarching themes—content framework, teaching-learning practices, assessment and evaluation, and support-enrichment. Their corresponding sub-themes and representative codes are elaborated in the following sections.

Content Framework

Within the scope of the study, participants expressed their opinions particularly on the arrangement of course contents and its alignment with the instructional needs of first-grade learners.

Turkish Course: The teachers indicated that there was a simplification in the content of the Turkish course compared to the previous curriculum. This simplification was particularly associated with the reduction in the number of learning outcomes. For example, T8 considered this a positive development, stating: “There are practices that I really liked. I mean, primarily the reduction in learning outcomes. I think this is how it should be”. Similarly, T5 referred to the timely completion of the coursebook by saying: “Likewise, we finished the Turkish coursebook and entered the mid-term break. The texts there were just sufficient in my opinion.” This indicates that the participant found the reduced content load beneficial for students.

Despite the simplification in the number of outcomes and texts in the Turkish coursebook, participants pointed out limitations in the appropriateness of the content to the grade level.) They particularly emphasized that some of the texts in the Turkish coursebook were relatively demanding for students at this grade level. T5 expressed this situation as follows: “Students had difficulty while doing it; there were parts they couldn’t make sense of in their minds.” T1 noted that the sentence and word structures and length of the texts made comprehension difficult for students, stating: “The texts are very long—some even span three pages. A first-grade child just learned to read. Expecting them to read three pages, understand, and complete the activities is too much. I found this very heavy for a child.” Other participants (T6, T8, and T9) agreed that the topics, length, and sentence and word structures of the texts were beyond the students’ comprehension levels. They also emphasized that the content was above the cognitive level of the students. T6’s statement: “They included a space text in Turkish. I mean, to develop the child’s imagination, yes—but it was heavy again, heavy for a first-grader.” serves as an example.

Participants who provided opinions on the literacy arrangements within CTEM highlighted that these arrangements posed certain challenges to the process of learning to read and write. Teachers primarily criticized the changes in the sound groups. The new curriculum requires transitioning to sentence

construction after completing two sound groups. Some teachers criticized this practice for causing difficulties in meaning construction. T9, for example, stated that the sound groups used in previous years facilitated meaningful sentence construction: “In the previous year, it was ‘e-l-a-k-i-n’. We could derive many more words and make them concrete. For instance, ‘Ela lale el ele.’ It was concrete—holding hands is something significant in a child’s daily life.” T2 emphasized that the necessity of learning many words simultaneously led to difficulties in both reading-writing and comprehension.

Participants T3, T5, and T9 drew attention to the writing directions of certain letters in the program, stating that these writing directions made learning difficult. This problem was especially noticeable with letters such as ‘a, n, t, i, l’. T3 noted that the writing directions were not compatible with natural hand movements. T9 illustrated this by saying: “The writing direction of the letter ‘a’—you start it like a ‘c’. It just doesn’t work. I even tried it myself that way—it doesn’t flow.”

Participants also reported that students had notable difficulties in forming syllables and words from sounds. One of the main reasons cited was the removal of the colored syllabication practice used in the previous program. T2 explained: “Previously, we used to give syllables in color. This year, it was removed. Our students who are lagging behind had difficulty reading words, especially long ones written in the same color and font.” Similarly, T3 remarked that this change made word recognition harder: “Last year it was colored. (This year) the children started reading ‘Emel’ as ‘Em-el’. If it were colored, they would read it as ‘E-mel’.” The same teacher illustrated that this made it difficult to reach the meaning of the word: “Then they couldn’t comprehend ‘Emel’ or ‘book’ for two hours. If I said ‘kitap’, you’d understand. But if I said ‘kit-ap’, they struggled.”

Life Studies Course: Teachers expressed varied views regarding the Life Studies course. Participants T3 and T8 stated that there was simplification in the content of the life studies course compared to previous programs. T3 stated: “We did not encounter any essential problems in the Life Studies course. There’s nothing particularly negative that comes to mind. Similarly, T8 emphasized the content was more balanced in terms of information density: “The Life Studies coursebook is better—there is not too much information overload.” However, T4 noted that due to the demographic structure of their school, particularly Syrian students had difficulty understanding the coursebook content. This was attributed to both the students’ language proficiency and the level of the coursebook topics: “The Life Studies coursebook is nice, but some of the topics in the book are far above the level of my students.” T5 expressed that students from refugee backgrounds faced challenges in understanding the material due

to language barriers, stating: "I mean, especially considering they are Syrian, they don't understand much." Participants noted that, despite the simplified content in the Life Studies course, differences among students may have influenced how comfortably some of them interacted with the material.

Mathematics Course: Teachers participating in the study expressed that the arrangements made it harder to understand the topics and operations in the first-grade Mathematics curriculum. T2 remarked that topic transitions in Mathematics were rapid and sometimes unclear, stating: "In first-grade Mathematics, it feels messy and inconsistent. Topic changes occur without clear transitions." T2 clarified that this made it difficult for students to grasp topics in depth: "Before rhythmic counting ends, it moves to subtraction, before subtraction is understood, to equality, before that's understood, to finding the missing number in addition, and then back to subtraction." T4 noted that the transition to subtraction, before students had fully internalized addition, may have made it harder for students to understand the new content. T1 stated that the topics were not sequenced appropriately for students' levels: "We are teaching basic addition—that's necessary. But in both addition and subtraction, there's a topic called mental addition. We've been dealing with it for the last two weeks. It requires doing several operations at once, abstract thinking—and our students are still in the concrete operational stage. It definitely needs rearrangement." Participants evaluated the simplification of mathematics content and suggested a need to reconsider how topics are sequenced and connected.

Teaching-Learning Practices

Participants addressed teaching-learning practices from the perspectives of content-related aspects, technology-supported methods, and physical classroom conditions. In this context, participants primarily stated that the activities included in the coursebooks were varied and supported student participation. For example, T4 highlighted the diversity by saying: "There are enriched, differentiated activities," while T1 stated: "There are more sensory games and group activities in this one." Both T1 and T4 noted that the activities promoted student engagement. Additionally, all participants agreed on the variety of activities in the Turkish coursebook. T2 described this variety as follows: "There are plenty of exercises in the Turkish coursebook, which is great. There are puzzles like finding the word in the dictionary, which comes first, which comes later. Then there are creative tasks like making predictions, completing the story yourself."

Teachers considered the Life Studies practices supportive of student engagement, highlighting their activity-based design. T5 described this course as: "Life Studies is supported with a lot of activities. Like

project homework, games. At the end of each topic there is an activity or a matching task—cut and paste especially was very enjoyable." Similarly, it was stated that the activities in the Mathematics coursebook were also varied. T6 noted this by saying: "They especially added more activities in the Mathematics book. It's enriched and well-balanced. The activities present the topic through different perspectives, which helps students better understand the content."

In the study, participants stated that they made use of activities offered via the Educational Informatics Network (EBA) and considered them helpful. However, the need for different educational portals and applications was also highlighted. This need was associated with the narrow scope and brief duration of some content. For instance, T8 stated: "I do have students use the activities provided there (on EBA). But some of them progress slowly. I mean, their durations are very short. So we couldn't use it very effectively." Participants emphasized that different technology-based applications could offer more variety. As an example, T5 said: "You know, there are various extra tools on different platforms... (provided examples of portals and applications). There are useful activities there."

Participants pointed out that limitations in the physical environment affected the application of teaching-learning practices. In this regard, challenges related to physical classroom conditions, alongside technology-based practices, emerged as noteworthy findings. Most participants stated that they experienced infrastructure problems regarding the use of technological tools in the classroom. The most commonly mentioned issues were smart board usage and internet access. In this regard, T1 shared their difficulties as follows: "We rely heavily on the internet, but we can't always access it. Or the smart board doesn't always turn on—it crashes, something happens. Time passes and you can't open it."

Another notable finding was that the large number of students in classrooms hindered the implementation of instructional activities. Most participants stated that especially in activity-based courses, crowded classroom made time management and individualized attention difficult. T1 shared this challenge as: "In crowded classrooms, it may not be understood. There may not be enough time to complete the activities." T5 also mentioned similar challenges and illustrated this particularly with writing activities: "It's difficult to carry out activities with forty-five students. For example, when correcting writing or doing dictation in first grade... trying to attend to all of them in one class period is not enough."

Assessment and Evaluation Process

Participants' views on the assessment and evaluation process structured under CTEM varied. In this respect,

participants viewed the diversification of assessment practices as a helpful adjustment. The process was not limited to exams; it was also diversified through open-ended questions, performance tasks, and observation-based evaluations. For example, T7 noted that the learning process is as important as the outcome, stating: "Just testing isn't enough to see what the child knows; sometimes you need to look at what they did throughout the process to understand how they learned." Participants emphasized that this practice contributed to a more holistic evaluation of student learning.

However, they also mentioned various difficulties encountered in implementing this process effectively. The analysis revealed that the structure of the assessment-evaluation process created some challenges within the instructional process. T1 pointed out that the observation-based rating scales implemented in the new program were time-consuming, which, in turn, made it harder to revisit some parts of the content during instruction: "In this model, we just mark our observations on the scales. Then we provide feedback to parents. In the classroom, since there isn't enough time, sometimes we can revisit the topic, sometimes we can't. It's not very efficient". Another teacher, who also mentioned having similar difficulties, associated these issues with the crowded classroom setting. This teacher described the difficulty of implementing individual evaluations in crowded classrooms as: "You apply it individually for each student, evaluate them separately, and file it for each one. Now, in classes of forty to forty-five students, it's unfortunately not really possible."

Participants T1, T2, and T3 stated that the time-consuming nature of the process also made it difficult to identify students' instructional needs. They also noted that skill- and process-based evaluation methods did not always adequately capture students' learning progress. T3 reflected on this situation by saying: "In this (new program), things seem to take longer. We're doing process- and skill-based assessments. But as a teacher, it's not always clear whether the student has understood the concept.". Alongside their views on the assessment-evaluation process in general, participants T2 and T4 commented specifically on the instruction of reading and writing. These teachers shared that the pace of assessment occasionally affected the overall learning process during reading and writing instruction. T2 described this situation as follows: "In the first semester, we were introducing two or three sounds per week. Later, it shifted to one sound per day. Providing assessment and evaluation for each sound daily became quite challenging. It also resulted in considerable use of paper and placed additional demands on time.". Based on these findings, it can be concluded that while teachers viewed the assessment and evaluation practices as having

multiple dimensions, they encountered challenges such as limited time and crowded classrooms, which may have made it more difficult to align assessment practices smoothly with instruction.

Support and Enrichment in the Differentiated Instruction Process

Findings obtained within the scope of differentiation in the study are presented below under the dimensions of support and enrichment.

Support: The findings from this study suggest that implementing differentiated practices presented certain challenges due to the current classroom environment. All teachers stated that they could not fully implement differentiated support practices addressing the individual needs of students with SEN in their classrooms. One possible contributing factor may have been the growing diversity of student learning needs, which might have made it more difficult to implement differentiated instruction effectively in the classroom. For example, T1 had two students in the classroom diagnosed with mild autism and intellectual disability. Accordingly, T1 expressed difficulty in effectively using differentiated practices: "We definitely cannot implement these with inclusion students. Because the child needs one-on-one attention." Similarly, T3 and T4 also shared that it is not always easy to implement differentiation suggestions in typical classroom environments.)

Participants noted that content appropriate to the individual levels of students is relatively limited. In this context, T3 highlighted the inadequacy of practices for students with learning difficulties and mild intellectual disabilities: "The activities in the government-issued books can be challenging for some students. Each student has a different learning profile—one may learn, but forget a week later. There is a need for activities more specifically designed to address their needs."

In this study, participants agreed that the lack of instructional materials limits support practices. For instance, T9 stated that the activities accessible via QR codes in the books did not sufficiently address the needs of students with SEN: "Among the QR code activities in the books, there's one—maybe—designed for these children, maybe not. I search and find activities on the internet myself.". T3 focused on the absence of specially prepared materials or activity books for students diagnosed with reading difficulties, saying: "I would've wanted to have an activity book. A book could be prepared specifically for these students in cooperation with the GRC."

Enrichment: In this study, two out of the ten teachers interviewed had gifted students in their classrooms. Therefore, findings on the enrichment dimension are

based on the views of these two teachers (T2 and T7). According to their opinions, differentiated practices were not fully integrated into the classroom teaching process.

T2 stated that a student in their class began first grade already able to read, but that no enrichment aligned with this student's developmental pace was provided. Instead, the student experienced "a waiting period", which T2 described as: "I haven't been able to do any enrichment for my gifted student so far." One of the reasons for this situation could be the intense and fast-paced nature of the first semester curriculum, which leaves little opportunity for individualized instruction. The teacher's remark: "First grade is really intense—it goes by in a rush. We're teaching letters, then their writing, then comprehension activities, and so on," reflects a daily routine that is intense, fast, and challenging.

Another participant, T7, noted that there were eight students in the class who had been formally identified as gifted, and added that these students receive four hours of enriched instruction (resource room) per week at school. Therefore, T7 noted that there seemed to be no need for additional in-class differentiation, explaining that these students were already provided with advanced support in a separate educational setting: "I have eight students (diagnosed). They participate in enriched instruction. They're supported at a higher level, engaging in different learning experiences.". This indicates that, since these students are already supported through alternative content and activities within the school setting, differentiated practices are not fully implemented in the classroom.

Although the study focused on the differentiated instruction dimension of CTEM, an additional finding was obtained during data collection. This finding relates to the fact that many teachers noted that the trainings could be more practice-oriented and detailed. Participants pointed to the background and experience of the trainers as a key factor contributing to this view. For example, T10 explained this situation as follows: "The instructor at the seminar was less knowledgeable than us—just read from the slides and moved on." Similarly, T8 stated: "The instructor didn't know much either; she was just a lady who had taken a few days of training." and "It's nothing beyond what we already do with individualized education plans," indicates that the teacher interpreted differentiated instruction as being limited to individualized education plans (IEPs).

Discussion and Conclusion

In this study, the opinions of teachers regarding the "differentiated instruction" approach implemented at the first-grade level within the CTEM were examined. Semi-structured interviews were conducted with

primary school teachers working in different provinces in public schools affiliated with the Ministry of National Education. Through these interviews, teachers' experiences with differentiated instruction practices and their views on the overall structure of the model were examined. The findings were organized under four main themes: content framework, teaching-learning practices, assessment and evaluation, and support and enrichment within differentiated instruction.

Content Framework

This study revealed that the content arrangements within the CTEM framework were seen as beneficial in certain respects, but challenges also emerged during their implementation. According to the findings, teachers generally viewed the simplification of learning outcomes in course content as a helpful adjustment. The teachers stated that the simplification of learning outcomes supported both a more manageable planning process and improved student understanding. This situation may contribute to a more systematic and level-appropriate instructional process. The first-grade level, in particular, is a critical period in which students are in the developmental stage of academic skills. In other words, at this level, students are developing foundational skills in reading, comprehension, conceptual understanding, and basic operations (Başar, 2019; Pianta & Kraft-Sayre, 2003; Whitmore & Meyer, 2020). Moreover, content simplification may facilitate the learning process not only for typically developing students but also for students with SEN. Although no direct statements on this issue were made by teachers in this study, the literature emphasizes the importance of taking individual differences into account while planning content (Deunk et al., 2018).

However, the findings of this study indicate that teachers had some reservations about the changes made to the course content. One of the highlighted difficulties was the process of learning to read and write, beginning with the changed sound groups and continuing through the stages of combining sounds into syllables, words, and sentences. Participants stated that students struggled in key areas such as constructing meaningful words and sentences from sounds, reading and comprehension, and correct letter writing. At this point, it should be noted that literacy is not only a technical skill but also a process based on constructing meaning (Whitmore & Meyer, 2020). Teachers also shared opinions regarding the language level, concepts, and length of the texts included in the Turkish coursebooks. For example, T1 and T8 emphasized that these features may have made it more challenging for students to engage with or understand the texts. This points to a need for the reorganization of texts. Indeed, the literature stresses

that understandable sentence structures, repeated words across different sections, and content that can be linked to students' background knowledge and experiences support literacy development (National Reading Panel, 2000; Paris & Hamilton, 2009; Wijekumar et al., 2023).

Teachers' opinions on the content of the Mathematics course, pointing to fast-paced conceptual transitions and the improper sequencing of operational steps. In this context, the views of T2 and T4 suggested that introducing subtraction before students had a solid understanding of addition may have made it harder for them to build meaningful comprehension. Early transitions between operations at the first-grade level may obstruct in-depth learning of relevant concepts (Kilpatrick, Swafford & Findell, 2001). Accordingly, it can be said that Mathematics content should be designed in a way that allows one operation to be understood and applied before transitioning to the next. These findings suggest that beyond simplifying the number of outcomes, presenting concepts, topics, and skills in accordance with students' developmental levels and aligning them with the instructional process is crucial.

At this point, factors such as the length of texts, the abstractness of certain topics, or the fast-paced conceptual transitions in Mathematics can be considered potential challenges not only for typically developing students but especially for those with special educational needs (SEN). In particular, the fact that some texts exceed students' comprehension levels or that certain activities require abstract reasoning at an early stage may create additional barriers for SEN students. These students often require more concrete, gradual, and scaffolded instruction (Delafontaine et al., 2024; Hornby, 2011).

Teaching-Learning Practices

In this study, the opinions regarding teaching-learning practices within the scope of CTEM included both positive aspects and encountered limitations. Participants particularly noted that the activities in the coursebooks that support the development and reinforcement of academic skills had become more diverse. Especially for primary school students, a variety of activities helps make learning more concrete, meaningful, and memorable (Silveira-Zaldivar & Curtis, 2019; Tomlinson, 2017). This diversity also aligns with the principles of Universal Design for Learning (UDL). According to this approach, the learning process should be adapted to individual differences, and the use of multiple learning pathways and strategies should be supported for the acquisition of knowledge and skills (CAST, 2018). In this respect, it can be concluded that CTEM considers individual differences in the design of learning activities, thereby supporting more inclusive instructional practices.

Although teachers viewed the diversity of activities in the coursebooks positively, they also reported experiencing limitations in access to technology-based applications. For example, while the use of the EBA education portal was recommended, its content was sometimes limited or either too simple or too complex for the students' level. This finding is consistent with the literature that suggests technology-based applications should be designed considering students' varying levels and needs (CAST, 2018; Rose & Meyer, 2002). In this context, not only should easy technical access to content be ensured, but the content itself should be designed to be adaptable to the diverse needs of students. Additionally, the success of teaching-learning practices should be understood to be related to crowded classroom, teacher competence, and classroom environment characteristics (Florian, 2019; Topal & Özsoy, 2025). In this study, some teachers stated that crowded classrooms limited the implementation of teaching-learning practices. This may act as a barrier to ensuring the active participation of every student in the learning process within the framework of differentiated instruction. Similarly, the literature indicates that crowded classrooms may reduce the effectiveness of implementation and make it more challenging for students with SEN to benefit fully from learning opportunities (Florian, 2019; Avramidis & Norwich, 2002).

As a result, while teachers appreciated the diversity of the teaching-learning practices recommended by CTEM, constraints in physical infrastructure and crowded classroom settings made it challenging to implement these practices effectively. Therefore, it is important that both the content and the learning environments where the content will be delivered are structured in accordance with students' developmental levels and learning needs. Moreover, it is essential to support teachers so that they can manage this process effectively.

Building on these findings, concerns such as class size, technological limitations, and content-student alignment may become more critical barriers in the learning processes of SEN students. The literature shows that these students require more individualized support, visual-concrete materials, and additional time (Delafontaine et al., 2024; Florian, 2019). In this regard, it is important that the diversity offered by CTEM can effectively reach SEN students through appropriately structured learning environments and by providing sufficient support for teachers.

Assessment and Evaluation Process

The findings of this study revealed that teachers' opinions regarding the assessment and evaluation practices within the CTEM framework varied. Some participants highlighted the value of using a variety of assessment tools. They also emphasized that the

assessment process should address not only learning outcomes but also the learning process itself. For example, T7 expressed this opinion as follows: "Just testing isn't enough to determine what the child knows; sometimes it is necessary to examine what they did throughout the process to understand how they learned.". This view indicates that the new program focuses not only on "what has been learned" but also on "how learning takes place". This perspective is consistent with the literature (Heritage, 2010), which suggests that process-oriented assessment helps educators observe the learning process. Studies emphasizing the importance of focusing not only on the outcome but also on the developmental process of learning can be found in this context (Karaman, 2021; Zhang et al., 2022).

On the other hand, some teachers in this study shared that they encountered a number of challenges in implementing assessment and evaluation practices. The most frequently mentioned difficulties were related to time management and crowded classrooms. In this context, T1 noted that observation-based rating scales limited instructional time and made it more difficult to revisit topics; T2 and T3 stated that the intensity of the process made it harder to identify instructional needs. Participants most often referred to challenges involving time management and the crowded classroom settings. In line with the findings, it can be concluded that the diversity of assessment practices is only meaningful when matched with appropriate implementation conditions. Heritage (2010) emphasizes that in order for assessment processes to guide instruction, they should be structured in a planned and systematic manner. Effective in-class assessment and evaluation are only possible when teachers can plan the process in a timely and meaningful way (Brookhart, 2011). Accordingly, the views expressed in this study are consistent with the literature. Participants especially drew attention to the fact that observation-based assessments are time-consuming and that the scope of individual assessments in crowded classrooms may not be sufficient to effectively support the identification of instructional needs.

At this point, the differentiation dimension of the assessment and evaluation process becomes an important topic of discussion. In this study, teachers did not directly address assessment and evaluation practices related to students with SEN. At the same time, the literature consistently emphasizes the importance of organizing assessment and evaluation processes in ways that take individual differences into account (Brookhart, 2017; Florian & Spratt, 2013). For students with SEN, there is a need for assessment and evaluation methods that do not focus solely on outcomes but also assess strengths and individual progress (Florian & Spratt, 2013). It can be recommended that these

assessment and evaluation methods include both standardized tools and informal techniques. Such an approach may also offer teachers the opportunity to plan and implement the instructional process according to students' diverse needs.

Support and Enrichment in the Differentiated Instruction Process

In this study, the differentiated instruction approach of CTEM at the first-grade level was investigated within the context of support and enrichment. The analysis of teachers' views regarding students with SEN and gifted students presents findings related to the classroom implementation of the model.

The research findings indicate that while teachers are aware of support practices, they experience difficulties in implementation. Teachers referred particularly to the lack of materials and activities addressing the individual needs of students with SEN, crowded classrooms, and time constraints that make one-on-one interaction more challenging. Indeed, T1's statement, "We definitely cannot implement these with inclusion students. Because the child needs one-on-one attention." draws attention to this challenge. This situation also suggests that the successful implementation of differentiated instruction is not only dependent on the planning process but also on the existence of appropriate conditions for practice. The literature similarly emphasizes that for differentiated practices to be effectively implemented, factors such as the physical environment, the diversity and availability of materials, and teacher workload are important to consider (Gaitas & Alves Martins, 2017; Tomlinson, 2014). In this way, both the opportunity to implement differentiated practices and the development of learning environments aligned with students' individual needs can be supported (Tomlinson, 2014).

Additionally, teachers pointed out that the printed and QR code materials did not offer enough examples to address diverse student needs. This suggests that the requirements for digital content go beyond mere technological access. It draws attention to the relevance of content in terms of suitability and adaptability to different needs. Researchers focusing on this issue also emphasize the importance of materials that are prepared or adaptable according to the individual learning differences of students with SEN (e.g., Hall, Meyer & Rose, 2012; Ok & Kim, 2017). Such materials can enable students to actively participate in the learning process, make sense of and consolidate the intended knowledge and skills at their own pace (Bural & Öztürk, 2024; Hall, Meyer & Rose, 2012; Pozas, Letzel, Lindner & Schwab, 2021).

The findings regarding enrichment practices in this study offer meaningful insights into another important

aspect of differentiated instruction. For example, T2's statement about experiencing "a waiting period" for their gifted student reveals that enrichment practices were not adequately integrated into the instructional process. This highlights that differentiation should also involve the creation of learning environments that support gifted students. The fact that T7's gifted students were provided with instruction in a support room as part of a project underlines the importance of school-based support rooms. However, this support may also prevent integration into classroom instruction. The literature emphasizes that enrichment should be planned as an instructional practice in conjunction with in-class interaction, rather than solely as an out-of-class or supplementary activity (Tomlinson, 2014).

As is known, CTEM began implementation in grades 1, 5, and 9 starting from the 2024–2025 academic year. Accordingly, in-service training programs were organized for teachers teaching at these grade levels during the fall semester. Although this study focused on the differentiated instruction dimension of CTEM, an additional finding was obtained during data collection. This finding indicated that many teachers considered the training to lack sufficient depth and practical relevance. The findings of this study show that teachers mostly found the in-service training they received to be limited. Participants' critiques, particularly regarding the knowledge level of the trainers, the lack of practice-oriented content, and the mismatch between training and real classroom situations are noteworthy. This situation suggests that in-service training may be more effective when it combines content delivery with practical examples. The literature also considers the quality of teacher training as a significant factor (Avalos, 2011; Darling-Hammond, Hyler & Gardner, 2017).

In conclusion, the differentiated instruction model presented by CTEM has the potential to offer an inclusive and learner-centered educational approach. However, the effective implementation of this potential in practice will depend on a range of supportive elements, including teacher training, material development, classroom-based support, and the improvement of infrastructure. Educational policies that take these multidimensional needs into account are more likely to support the model's effectiveness.

Recommendations

Based on the findings of this study, several directions for future research and educational practice are recommended to enhance the effectiveness of the CTEM's differentiated instruction model. Future studies should extend beyond the first-grade level to include 2nd, 3rd, and 4th grades in order to explore potential differences in CTEM implementation across grade levels. Since CTEM is currently limited to the first-

grade level, the present study provides only an initial evaluation. As the model is progressively implemented in higher grades, further research will be necessary to examine its broader effects and applicability. Longitudinal studies examining the impact of CTEM's support and enrichment dimensions on students' academic, social, and emotional development would provide valuable insights into long-term effectiveness. Additionally, action research investigating how teachers apply differentiation strategies - such as classroom material design, flexible grouping, and individualization - may offer practical guidance to strengthen the model. It may also be valuable to consider students' perspectives by conducting studies that explore how they engage with the support structures provided by CTEM. Comparative research across regional, socioeconomic, and urban-rural contexts would further inform educational policies by identifying implementation challenges and contextual needs.

From a practical standpoint, it would be beneficial to strengthen teacher preparation programs by placing greater emphasis on differentiation, individualization, and inclusive education for gifted students and those with SEN. Moreover, CTEM's support and enrichment modules should be adapted to each school's student profile through "micro differentiation plans," developed collaboratively by teachers and monitored by school leadership.

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