

Looking at the Reform of the Century of Türkiye Education Model through the Lens of Synchronization Theory by Wearing Phenomenological Glasses

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Abstract: In 2024, Türkiye launched a reform movement that adopts the dynamics of Turkish culture to produce solutions to the chronic problems in the education system. This study aimed to understand how primary school first-grade teachers experienced this process in the early stages of the reform movement called the Century of Türkiye Education Model. 10 teachers, who were determined using the criterion sampling technique, participated in the study, which was conducted using a qualitative method and phenomenological design. In the study, data were obtained through semi-structured interviews and analyzed with content analysis. The findings showed that the teachers were thrust into a major reform process with very limited preparation. It was revealed that the teachers' inadequate knowledge about the changes introduced caused them to experience negative emotions and have negative thoughts. They transferred these negative feelings and thoughts to their behaviors by not fully fulfilling the requirements of the reform initiative. We used the synchronization theory as an explanatory way to discuss our findings. The study concluded that synchronization between policymakers and teachers is an important factor for the success of the Century of Türkiye Education Model reform initiative. In light of this important result, we offered some practical suggestions to teachers, policymakers, and researchers.

Keywords: Education Reform, Primary School First-Grade Teacher, Synchronization Theory, The Century of Türkiye Education Model, Türkiye

1. Introduction

Political, social, economic, and technological factors have put great pressure on education systems, especially since the beginning of the new century (Jiang & Saito, 2024; Organisation for Economic Co-Operation and Development [OECD], 2013, 2018, 2023; World Bank, 2016, 2018). The COVID-19 pandemic added biological pressure factors to the list, leading to further acceleration of education reforms (United Nations International Children's Emergency Fund [UNICEF], 2020; Zhao & Watterston, 2021). Therefore, most countries are trying to improve their education systems, especially because of the impact of education on social and economic well-being (Högberg & Lindgren, 2022; Sahlberg, 2016; United Nations, 2020, p. 2). Scientific circles seem to reach a consensus that teachers have a fundamental role in the success of a reform movement in education (Akala, 2021; Akpınar & Aydin, 2007; Haug & Mork, 2021; Kondakci et al., 2015; Mellegård & Pettersen, 2016; Unsal et al., 2019). However, despite this consensus in the literature, there is little research focusing on understanding exactly what teachers experience at the very beginning of a reform process (Akpınar & Aydin, 2007; Borna Khajeh et al., 2022; Terhart, 2013). Scott et al. (2024) explained in a recent comprehensive study that they conducted that teachers' readiness for change in different periods was not investigated.

Researchers tend to examine teachers' approaches to changes in education systems, generally from similar theoretical perspectives, with quantitative methods that assume the school levels at which teachers work are homogeneous (e.g. Adolffsson, 2024; Hidayah et al., 2022; Kondakci et al., 2015; Zayim & Kondakci, 2015). However, primary schools and primary school teachers have a unique place in education. Therefore, they deserve to be directly focused on (Bakx et al., 2015). Primary schools are the first step in the education life of some students in all countries, and primary school teachers are the first teachers they encounter. The quality of education students receive in primary school can affect their entire educational career (Boland, 1993; Slavin, 1993). According to Erikson's (2018) life cycle theory, students make decisions about whether they are successful or unsuccessful during their primary school

years. In the first grade of primary school, teachers teach their students many vital skills such as reading and writing in their native language, basic mathematical skills, being a member of a social circle, the rules of common living, and basic citizenship behaviors (Erikson, 2018). While primary school first-grade teachers are imparting these very important skills to their students in their classrooms, changes in the education system may cause them to change their past practices and habits (Terhart, 2013) and disrupt the synchronization they have established with their students (Ishtiaque et al., 2023). For this reason, it was deemed worthwhile to examine the experiences of primary school first-grade teachers regarding The Century of Türkiye Education Model (CoTEM), the most recent reform initiative in Turkey.

CoTEM aims to bring about fundamental change in the Turkish education system and overcome its problems, based on a student-centered approach. CoTEM aims to support students' social, emotional, and cognitive development from an early age, develop their critical thinking, problem-solving, and technology skills, and thus raise globally competitive citizens (Ulçay, 2024). In the skill-based model, conceptual skills, subject-specific skills, social-emotional skills, literacy skills, and values are included in order to equip students with the skills required by their age, starting from the first grade of elementary school (Yildirim & Caliskan, 2024). According to the renewed curricula within the scope of CoTEM, first-grade course contents have been prepared in a way that will enable students to gain environmental awareness (Ceylan & Peker, 2024) and acquire financial, visual, and critical literacy skills (Sezer & Dedeoglu, 2024). First grade is the educational year in which students in almost all countries develop reading and writing skills in their native languages. In this regard, the CoTEM curriculum places special emphasis on the correct and effective use of the native language. The ultimate goal of the model is to raise competent and virtuous individuals (MoNE, 2024a). Given that first grade marks the beginning of academic education, it can be said that it holds particular importance in achieving this ultimate goal. It is important to understand the bottom-up responses of primary school first-grade teachers, who are responsible for the first year of academic education, to this major policy change designed top-down by policymakers, as well as their experiences during this process.

Existing literature addressed how teachers respond to change in reform initiatives carried out in different countries from the perspective of different approaches (Akala, 2021; Haug & Mork, 2021; Kaviti, 2018; Mellegård & Pettersen, 2016; Mulenga & Kabombwe, 2019). However, to our knowledge, no study has interpreted how teachers respond to an educational reform through the lens of synchronization theory. Examining an education reform initiative from a synchronization theory perspective through a phenomenological study can provide significant contributions to the expansion of theory and the existing knowledge base for education researchers. Additionally, with this study, we respond to calls in the literature to emphasize teachers' voices, understand their needs, and include their first-hand perspectives by engaging with them in ambitious reform initiatives (Haug & Mork, 2021; Kent, 2013; Mellegård & Pettersen, 2016). In our study, we seek to answer the question of how primary school first-grade teachers experienced the first stages of the reform process initiated with the Century of Türkiye Education Model.

2. Theoretical Framework

2.1. Change in education systems

Change, which is one of the operational and strategic characteristics of organizations, is simply defined as moving from one existing situation to another (Burnes, 2004). However, the transition of organizations from their current state to another, in other words the reforms they implement, often represents a process that is difficult to predict, uncertain, and quite controversial (Terhart, 2013). Therefore, in order for a planned reform movement to be successful, an effective change management process must be implemented in educational organizations and other organizations and employees must be prepared for change (Burnes, 2004; Wang et al., 2020). Although the success or failure of

education reforms is affected by many different factors, the most important of these factors is the responses of teachers to the reform initiative, which plays a decisive role (Akala, 2021; Burnes, 2004; Kondakci et al., 2015; Zayim & Kondakci, 2015). When teachers do not internalize education reforms, changes in policy documents cannot lead to changes in behavior (Hallinger & Bryant, 2013). In other words, the expected synchronization between legal texts and implementation practices does not occur.

2.2. Synchronization theory

The word synchronization, which originates from Greek, means “occurring at the same time” (Pikovsky et al., 2001, p. 17). The word synchronization is explained in dictionaries as simultaneous occurrence, occurring at the same time, equalization, time harmony, and synchrony. The phenomenon of synchronization of oscillations, discovered by Christian Huygens with a pendulum clock in 1665 (Balanov et al., 2009, p.15), is the subject of many studies, scientific articles, and books, and are defined in various ways.

Pikovsky et al. (2001) defined synchrony as a universal phenomenon that manifests itself in the adjustment of rhythms of interacting self-sustaining systems (p. 8). The realization of this phenomenon requires that objects be oscillators and autonomous systems, as well as open systems that receive signals from their environment and interact with other objects. Oscillators are self-sustaining systems and can exhibit various forms of rhythm (Pikovsky et al., 2001, pp. 8-9). This perspective on synchronization was adopted by many scientists (e.g. Balanov et al., 2009, p. 1).

In the literature, numerous examples from nature regarding the phenomenon of synchronization are presented. These were explained in a wide range of ways, from the periodic motions of the planets, to the harmony of the sounds of organ pipes, to the random opening of channels in cell membranes, to flocks of birds flapping their wings, to fireflies emitting sequences of light pulses, to the synchronized firing of neurons, to the applause of concert audiences. The common feature of these different physical and biological systems is that they produce periodic rhythms that have the capacity to adapt to each other (Balanov et al., 2009, p. 2; Eilam, 2019; Pikovsky et al., 2001, p. 17). In summary, synchronization, which we encounter in a great variety, is encountered not only in natural events but also in the physiological structures of living beings or in their social lives, in relationships, or in organizations that are a network of relationships (Balanov et al., 2009, p. 2).

The number of studies that provide a theoretical basis from synchronization theory is increasing, and these studies provide important information for understanding human behavior. For example, in his pioneering study with a group of female students living in a university dormitory, McClintock (1971) found that social and emotional synchrony among the students increasingly synchronized the physiological functioning of their bodies. Eilam (2019) suggested that the emotions that people construct can be viewed as oscillators that can synchronize with each other, and therefore, it is possible to examine emotional climate as a form of synchronization in an ensemble of oscillators. Nummenmaa et al. (2012) conducted a study with subjects who watched a movie together and proved that the networks of brain regions of the participants who watched similar emotional events “worked together”, in other words, were synchronized. Stone et al. (2006) conducted a study with 909 female employees and found that there was a rhythm in the emotions of employees throughout a working day and that a pattern was repeated. Some studies also indicated that synchronization in educational environments can produce positive results. For example, Kent (2013) redefined teaching in the context of synchronization theory and explained teaching as a natural cognitive ability that requires human interaction. Furthermore, it was noted that teaching is most optimal when there is synchrony or flow in these interactions (Kent, 2013). Degenhart and Wabara (2021) adapted the concept of simple synchronization to teaching and learning. In their experimental study, they pointed out that simple synchronization could prevent students from compromising their lessons and performance. Based on

this information in the literature, we also suggested in our study that an education reform could be examined through the lens of synchronization theory.

2.3. The context of Türkiye and the Turkish education system

The Republic of Türkiye celebrated its 100th anniversary a while ago. During this time, the number of students in Türkiye increased by 53 times, the number of teachers by 93 times, and the number of schools by 15 times (Ministry of National Education [MoNE], 2024c). Thus, in Türkiye, with a total population of over 85 million, with nearly 20 million students and more than one million 150 thousand teachers (MoNE, 2023), the Turkish education system is described as a macro system (Ozdemir et al., 2023). Compulsory education for all students in Türkiye is 12 years. After preschool education, students attend four years of compulsory primary, secondary, and high school education. In an academic year at the K-12 level, students attend school for 180 days. Students usually start their education in the second week of September and have four periods of vacation. At the beginning of each level of education, an orientation week is implemented for students in preschool, primary school, secondary school, and the first year of high school. Students in these grades start school with their teachers on the first day of September.

There were numerous reform attempts in the Turkish Education System throughout the history of the Republic (e.g. MoNE, 2017). But all these well-intentioned efforts were not enough to improve outcomes for Turkish students and increase the effectiveness of schools. The results of international comparisons and national exams show that there are significant problems with student learning in Türkiye (MoNE, 2023; OECD, 2023; TIMSS, 2019). Moreover, studies conducted in Türkiye show that the Turkish education system has chronic problems (e.g. Oldac & Kondakci, 2020). These results once again mobilized policymakers, and a major education reform called the Century of Türkiye Education Model was launched, which is planned to be gradually implemented in 2024.

Announced as an educational model specific to Turkish culture, CoTEM was put into practice with the slogan "From Roots to the Future". The model, which was introduced as the biggest education reform that Türkiye has ever implemented, aims at the holistic development of students. The model, which places humans at its center, aims for the synchronized development of students in five developmental areas: cognitive, affective, behavioral, social, and spiritual development. The model emphasizes a rights and learning-based learning process and flexible and free learning environments. Language skills, values education, student-centered, and differentiated education are the areas emphasized in the model. The model defines curricula as concrete indicators of the educational approach and aims to reduce the pressure of an intensive curriculum, which is one of the important criticisms about the Turkish education system. The curriculum adopts a holistic approach consisting of student profile, virtue-value action framework, and skills framework components (MoNE, 2024a, p. 4). In our study, we look at the CoTEM reform movement initiated in Türkiye through the lens of synchronization theory with the experiences of teachers.

3. Method

3.1. Study design

The study was conducted using a qualitative method and a phenomenological design. Studies conducted using phenomenological designs allow the discovery of how ordinary people make sense of a phenomenon, how they experience it, and the common meanings in these experiences (Bogdan & Biklen, 2022; Creswell, 2020; Merriam, 2018). The study aims to determine the essence of the subjective responses and experiences of teachers to the process of change experienced with the CoTEM, which was started to be gradually implemented in Türkiye in the 2024-2025 academic year and was declared to be the biggest policy reform in the history of the Republic of Türkiye. It was decided that the

phenomenological design was the most appropriate design to achieve this purpose. *Teachers' response to change in an educational reform process* was determined as the phenomenon of the study.

3.2. Study group

The participants in the study consisted of 10 primary school first-grade teachers who volunteered to participate in the research and who were teaching first-grade elementary school classes. Of the teachers in the study group, 7 were female and 3 were male. One of the teachers had a master's degree, and the others had a bachelor's degree. They had been working as teachers for periods ranging from 1 to 35 years. The teachers also had different experiences of being primary school first-grade teachers. Some were first-time primary school first-grade teachers and those who were working as primary school first-grade teachers for the 10th time in their careers. Additionally, each of the teachers was working in a different schools. 3 teachers were working in a private school, and 7 teachers were working in a public school. The characteristics of the teachers who participated in the study are shown in Table 1.

Table 1

Demographic Characteristics of Teachers in the Study Group

No	Code	Gender	Seniority	Educational level	Type of school	First-grade experience
1	T-Change	Female	19	Master's degree	Private	6
2	T- Ändern	Female	12	Bachelor's degree	Private	7
3	T-Changement	Male	19	Bachelor's degree	Public	6
4	T-Cambiar	Female	20	Bachelor's degree	Public	8
5	T-Modifica	Female	19	Bachelor's degree	Public	6
6	T-Değişim	Female	18	Bachelor's degree	Private	5
7	T-Mudar	Male	35	Bachelor's degree	Public	10
8	T-Scihimba	Female	27	Bachelor's degree	Public	6
9	T-Forandring	Male	30	Bachelor's degree	Public	9
10	T-Muttaa	Female	1	Bachelor's degree	Public	1

3.3. Data collection tool and data collection

The data of the study were collected through face-to-face interviews using a semi-structured interview form. In developing the semi-structured interview form, Merriam's (2018) recommendations were followed, and the form was developed in five stages. First, the literature was reviewed in detail and the data collection tools used in similar studies were examined (e.g. Bada, 2018; Kilinc, 2014). It was examined how questions were asked to the participants in order to reveal the opinions of teachers in the measurement tools used in these studies. Secondly, a draft form was created in line with the study problems. Thirdly, the draft form was presented to the expert opinion of two academics in the field of educational administration who were experienced in qualitative research. Based on the opinion of the first expert, one question was removed from the draft form. Based on the opinion of the second expert, two probing questions were added to the draft form. Fourthly, the interview form was presented to two Turkish teachers for their opinions in terms of grammar and understandability. The Turkish expression of four probing questions that were evaluated as "partially appropriate" by Turkish grammar experts was adjusted according to the experts' suggestions. Fifthly, a pilot scheme was conducted by testing the draft form with two primary school first-grade teachers. The teachers who participated in the pilot scheme gave feedback that the form was easy to understand. The researchers also decided that all the questions in the draft form in the pilot scheme were suitable for the study purposes. The semi-

structured interview form, which was finalized in this way, consisted of 5 demographic questions, 6 open-ended questions, and 9 probing questions and was ready to be implemented.

Some of the questions in the semi-structured interview form were as follows:

1. How do you generally evaluate the Century of Türkiye Education Model?
2. What are your thoughts on the preparation process for the implementation of the Century of Türkiye Education Model?
3. What are your thoughts on the expected applications under the Century of Türkiye Education Model?

Before the data collection process of the study began, ethical approval was obtained from Kocaeli University with decision number 2024/13-23. The participants included in the study were given detailed information about the study. Voluntary consent was obtained from the participants. Appointments were made for the interviews. The interviews took place on days and times convenient for the participants in their school libraries, an empty classroom, or the teacher's study room. The interviews were recorded with a voice recorder.

3.4. Data analysis

The data were analyzed using content analysis. Content analysis refers to systematically and objectively summarizing what is intended to be said with words and revealing the pattern in the data (Patton, 2018, p. 442). During the interviews with the participants, 473 minutes of audio were recorded. We transcribed the interviews recorded with a voice recorder into text on a computer. In this way, we obtained 112 MS Word pages of written text. We analyzed the data according to the steps of Moustakas's (1994) transcendental phenomenological model. We transferred the written data to a table we prepared for analysis. We read the data several times and removed the sentences that were considered irrelevant. The dataset, which was sorted and made ready for analysis, consisted of 2515 sentences. The researchers analyzed the data separately. We identified and marked the key expressions (memo), codes, and themes in the analysis table. It was later understood that the two researchers assigned different codes to the 236 sentences. The researchers first discussed the semantic and theoretical contexts of these sentences and then coded them by consensus. Codes were assigned to these sentences by consensus of both researchers. The findings obtained from the data were organized under themes and codes to convey the essence of the participants' experiences, visualized (Figure 1), and presented descriptively by directly conveying the participants' views. Moreover, each participant was identified with a code name to conceal their identity. For this purpose, each participant was assigned a code with the meaning of the word "change" in widely spoken languages that use the Latin alphabet. Additionally, the letter (T) was added to the beginning of the code to indicate that the participants were teachers. For example, the participant in second place was identified with the word "Ändern", which is the meaning of the German word for change, and the participant was named with the code T-Ändern.

3.5. Measures taken for validity and reliability

In order to increase the quality of the study, we applied the strategies suggested by some important scientists in the literature regarding ensuring validity and reliability in qualitative research (Bogdan & Biklen, 2022; Creswell, 2020; Merriam, 2018; Patton, 2018). First, we discussed the information we had on the subject in order to bracket it and control researcher bias. Afterwards, we conducted a detailed literature review. We increased our interaction with the participants by conducting long-term, in-depth interviews with them. By establishing a relationship of trust with the participants, we aimed to reduce the researcher's influence on the participants and to collect depth-oriented data. We also sought assistance from experts in the development of the data collection tool and took expert review measures. We transcribed the audio recordings obtained from the interviews on a computer. We then forwarded these written documents to the participants to confirm that what they said was transcribed accurately.

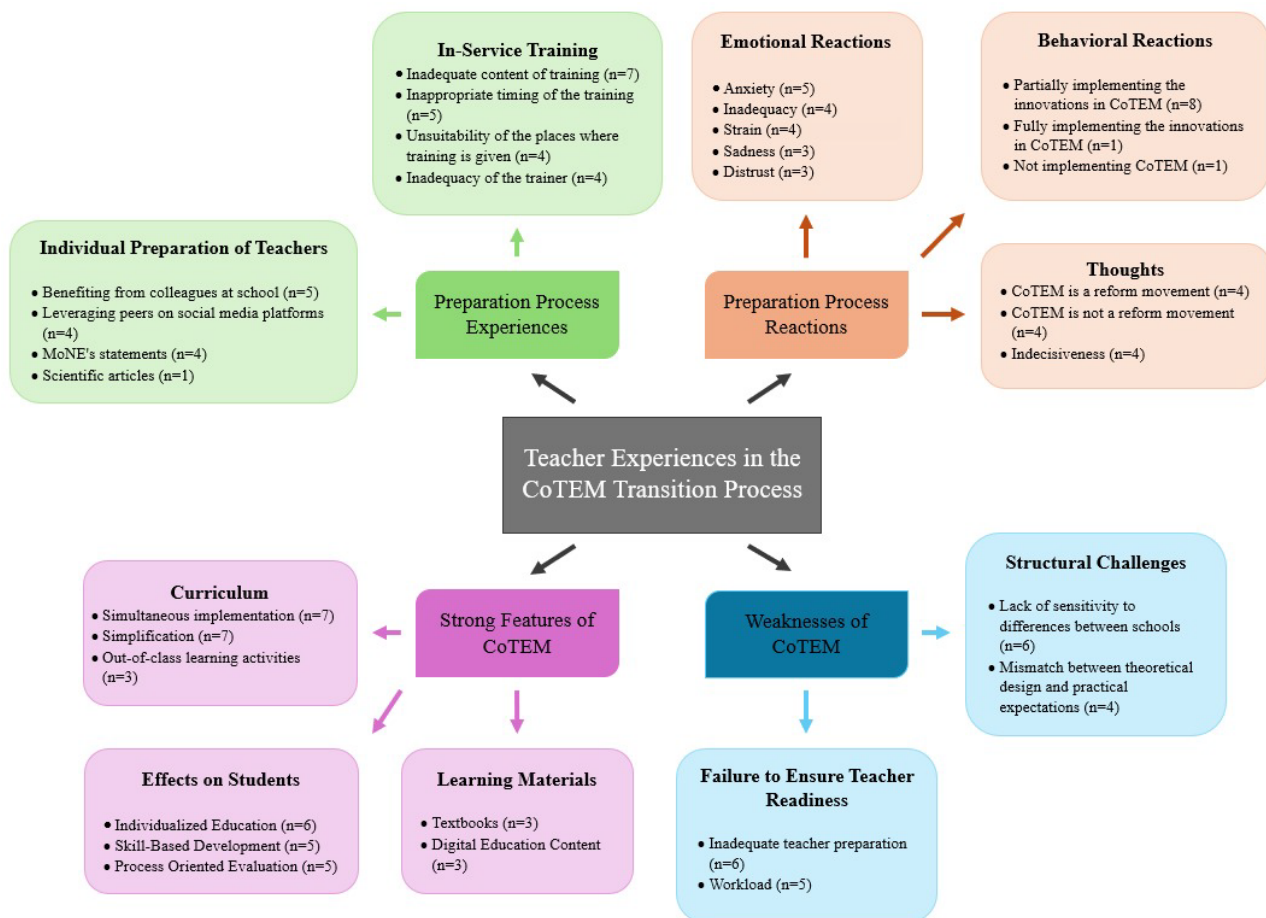
We made sure that the participants were from different schools, genders, and professional experiences. In this way, we increased the credibility of the study (Patton, 2018, pp. 341, 556). We provided detailed information by making rich descriptions about the study process. We ensured maximum diversity by including a large number of teachers who had experienced the phenomenon in the study. We ensured transferability (Merriam, 2018, pp. 218-228). We recorded our interviews with the participants with a high-resolution audio recorder. Then we transcribed it on a computer (Creswell, 2020, p. 255). During the coding process, we calculated the agreement percentage between the coders using the Miles and Huberman (1994) model. We found the agreement percentage to be 90.6% due to the different codes that the researchers assigned to the 236 sentences. We considered internal consistency to be high because the agreement between the coders was greater than 80% (Miles & Huberman, 1994). Thanks to these measures, we ensured the consistency of the study (Creswell, 2020, p. 255). We directly conveyed the participants' opinions in the presentation of the findings of the study (Bogdan & Biklen, 2022, p. 195). We backed up the study data and stored it. We also made our data accessible to other researchers. In this way, we ensured the verifiability of the study.

3.6. The role of the researcher

The first researcher worked as a school counselor for many years and is currently continuing her career as an academic. The second researcher is a primary school teacher. She conducted the face-to-face interviews from which the study data were obtained. Since the second researcher was a primary school teacher, it was easier to establish a trusting relationship with the participants during the data collection process. Thus, in-depth data could be obtained. The first researcher's identity as an academic and psychological counselor enabled the prejudices in the study to be controlled.

4. Findings

In the study, it was determined that the teachers' opinions and experiences regarding the transition process to CoTEM formed four themes. The first theme was named as the experiences of teachers in the CoTEM preparation process, the second theme as the reactions of teachers during the transition process to CoTEM, the third theme as the strengths of CoTEM in the experiences of teachers, and the fourth theme as the weaknesses of CoTEM in the experiences of teachers. We also identified a total of 10 sub-themes and 31 codes within these themes. The identified themes, sub-themes, and codes are shown in Figure 1.

Figure 1*Classroom Teachers' Experiences in the Reform Process of the Turkish Century Education***4.1. Theme 1: Experiences of teachers in the CoTEM preparation process**

We identified two sub-themes related to teachers' experiences with the CoTEM preparation process. We named these sub-themes "in-service training" and "individual preparation of teachers." The in-service training sub-theme included four codes (inadequate content of training, inappropriate timing of the training, unsuitability of the places where training is given, inadequacy of the trainer), and the individual preparation of teachers' sub-theme also included four codes (benefiting from colleagues at school, leveraging peers on social media platforms, MoNE's statements, scientific articles).

The first sub-theme includes the experiences of teachers in the in-service training organized by MoNE to prepare teachers for CoTEM. All teachers reported negative experiences with the in-service training organized by MoNE. The teachers stated that there were important problems regarding the content, time, and place planning of in-service training and the qualifications of the educators providing it. According to the experiences of teachers, the in-service training only included theoretical knowledge and was insufficient to acquire practical skills. The teachers also negatively evaluated the fact that the in-service training was held in the first week of September and lasted only three days. For example, T-Değişim expressed this as follows: *"The first week of September is the week of adaptation to school for first-grade primary school students. Since we were in in-service training, we could not do adaptation activities with our students. In any case, a three-day training was not enough time for us to learn this model."* The teachers also explained that the meeting rooms where CoTEM information trainings were held prevented them from doing practical applications and that the trainers who provided information about the model had very limited knowledge about the model. A striking finding in the study was that

three of the teachers (two private school teachers and one public school teacher) did not attend the events organized by MoNE.

The second sub-theme includes their experiences regarding their own preparations for CoTEM. The teachers explained that since they were not adequately prepared for the change by MoNE, they sought help from different sources of information to adapt to the process. They stated that they mostly learned from their colleagues at their schools and from their colleagues on social media platforms. Other sources of information for teachers were written explanations by MoNE and scientific articles.

4.2. Theme 2: Reactions of teachers during the transition process to CoTEM

We identified three sub-themes related to teachers' reactions during the transition to CoTEM. We named these sub-themes "emotional reactions," "behavioral reactions," and "thoughts." The emotional reactions sub-theme included five codes (anxiety, inadequacy, strain, sadness, distrust), the behavioral reactions sub-theme included three codes (fully implementing the innovations in CoTEM, partially implementing the innovations in CoTEM, not implementing CoTEM), and the thoughts sub-theme included three codes (CoTEM is not a reform movement, CoTEM is a reform movement, indecisiveness).

The first sub-theme includes the experiences of teachers regarding their emotional reactions during the transition process to CoTEM. The teachers explained that they experienced negative feelings toward themselves and policy makers. The most intense emotion that teachers felt for themselves during the process was anxiety, followed by inadequacy, difficulty, and sadness. For example, T-Modifica and T-Scihimba said that there were times when they cried due to the anxiety and feeling of inadequacy that they experienced during the transition process to CoTEM. T-Ändern explained the emotional difficulty she experienced with the words, *"...my past knowledge and habits make it difficult for me to learn new things. This constantly gives me a feeling of strain. I don't like this feeling."* The most common feeling teachers experienced for policy makers was distrust. For example, T-Changement expressed the feeling of distrust he experienced with the words, *"They (policy makers) did not ask anyone (teachers) when they introduced this model. They will not ask anyone when they remove it either. Like the others (previous policy changes), this one will also be shelved in a short time."*

The second sub-theme includes the experiences of teachers regarding their intellectual reactions during the transition process to CoTEM. The teachers had different opinions about whether CoTEM is a real reform movement. Some teachers thought that CoTEM is a great reform movement, while others thought that it cannot be considered a change movement. Some of the teachers also said that they were undecided about CoTEM. For example, T-Muttaa thought that the model is a major reform movement. T-Change's words, *"A promising model for the future. This is a vaccine study..."* and her explanation of the changes made with CoTEM with the vaccine metaphor show that she evaluated the model as a reform movement. T-Scihimba's statement that *"it did not bring any significant changes. What was said before is now being explained with other concepts"* shows that she did not think CoTEM was a reformist initiative. It is understood from T-Cambiar's sentence, *"We could not fully understand what The Century of Türkiye Education Model is,"* that she was undecided about the model.

The third sub-theme includes the experiences of teachers regarding their behavioral reactions during the transition process to CoTEM. It was determined that the majority of teachers partially transformed the changes brought by CoTEM into behavior and partially implemented them in their classes. T-Muder explained this with the words, *"...first, I show the students how to write the letters as suggested in the new model. Then I teach them as I know."* It was understood that one teacher (T-Modifica) did not implement any innovations in the model, and one teacher (T-Muttaa) carried out her class work in full compliance with the new model.

4.3. Theme 3: Strengths of CoTEM in the experiences of teachers

We identified three sub-themes related to teachers' experiences with the strengths of CoTEM. We named these sub-themes "learning materials," "effects on students," and "curriculum." The learning materials sub-theme included two codes (textbooks, digital education content), the effects on students sub-theme included three codes (individualized education, skill-based development, process-oriented evaluation), and the curriculum sub-theme included three codes (simultaneous implementation, simplification, out-of-class learning activities).

The first sub-theme includes the experiences of teachers regarding the features they found strong in CoTEM's curriculum. According to the experiences of teachers, the curriculum being implemented simultaneously in all classes in Türkiye, the simplification of the curriculum, and the inclusion of out-of-class learning activities into the curriculum were the curriculum-related features that they found strong in the model.

The second sub-theme includes the experiences of teachers regarding the features they found strong about CoTEM's learning materials. According to the experiences of teachers, the textbooks and digital course materials prepared for the new model were the course materials-related features that they found strong in the model. The teachers expressed their satisfaction with the inclusion of QR codes in the textbooks and the fact that the books were designed to be skill-based. They also stated that the digital course content within the EBA (Education Information Network) digital platform created by MoNE is among the strong features of the model.

The third sub-theme includes the experiences of teachers regarding the features they found strong in terms of the reflection of CoTEM on students. According to the experiences of teachers, the strengths of CoTEM were that the model was sensitive to individual differences of students, aimed at developing students in a skill-based manner, and adopted process-oriented evaluation.

4.4. Theme 4: Weaknesses of CoTEM in the experiences of teachers

We identified two sub-themes related to teachers' experiences with the weaknesses of CoTEM. We named these sub-themes "failure to ensure teacher readiness" and "structural challenges." The sub-theme of failure to ensure teacher readiness included two codes (inadequate teacher preparation, workload), and the sub-theme of structural challenges included two codes (lack of sensitivity to differences between schools, mismatch between theoretical design and practical expectations).

The first sub-theme includes the experiences of teachers regarding the problems caused by passing the CoTEM without ensuring their readiness. The fact that teachers were not adequately prepared for the education reform that affected the whole of Türkiye, and the model increased the workload by defining too many forced tasks for teachers was thought to be the weaknesses of the model by the teachers. For example, T-Muttaa, who worked in a public school and was only in her first year in the teaching profession, said, "*...I am a teacher working in a public school. In order for the state to entrust children to me, I have to undergo serious training [...] In such a new system, they should have expected the teacher they entrust the children to be aware of everything. Of course, they should have made an effort to meet this expectation,*" showing that MoNE failed to ensure teachers' readiness for a major change. T-Forandring explained the workload created by the model as follows: "*... after each activity we do, we fill out dozens of pages of paperwork. We record the codes defined for the topics we cover in each lesson. This never ends. I have 32 students in my class. I spend ten minutes of each lesson on these ridiculous tasks.*"

The second sub-theme includes the experiences of teachers regarding the structural problems of CoTEM. According to the experiences of teachers, the fact that not all schools in Türkiye have equal resources and the contradictions between the theoretical design of the model and practical expectations were structural problems experienced by the teachers in the model. While the teachers considered

CoTEM's adoption of an activity-based approach as a positive feature, they explained that not all schools in Türkiye have the human and material resources to carry out these activities. They stated that some schools are located in disadvantaged areas and do not even have basic stationery. For example, T-Modifica's experience, "*...in my school, most of the students come from poor families. The school does not have money either. I bought the necessary materials for the first few activities myself. But I could not do the following activities because families do not have the money to buy the materials. The school does not have internet to access digital content,*" shows that the model cannot be applied in the same way in all schools. T-Changament explains the discrepancies between the theoretical design of the model and practical expectations by the fact that although the model claimed that it simplified the curricula, the curricula of some subjects (e.g., mathematics) were made more intensive than the previous curricula. T-Değişim stated that although the activity-based approach and differentiated teaching model were adopted in the theoretical design of the model, this expectation could not be met in practice due to the large number of students in the class, inadequate classroom furniture, and small classroom space.

5. Discussion, Conclusion, and Recommendations

This study aimed to explore the experiences of teachers in the transition process to the Century of Türkiye Education Model, which was announced to the public as the biggest education reform of the century in Türkiye and started to be implemented in September 2024. When the study data were analyzed, four broad themes with sub-themes emerged. The findings demonstrated that this major reform initiative was implemented before teachers were adequately prepared for the change. In the study, it was understood that the teachers could not be convinced about the necessity of change, and that the teachers were asked to apply the model in their classes without gaining theoretical and practical skills. It was determined that the teachers who were caught unprepared for a major change showed negative emotional reactions such as anxiety, inadequacy, difficulty, and insecurity, and exhibited resistance behaviors by partially reflecting the change brought by the model into their classroom practices. It was understood that although the teachers thought that CoTEM has features that can provide positive change in the education system, they believed that the model has significant structural problems due to its approach that considers all regions and schools in Türkiye as homogeneous. We discuss these findings by borrowing the lens of synchronization theory.

Education reforms are primarily carried out to provide solutions to systemic problems, increase the effectiveness of schools, and improve student outcomes (Akala, 2021; Hargreaves & Fullan, 2009). The last education reform in Türkiye aimed to nationalize the education system, adopt an education model that is sensitive to the country's own culture, and eliminate the deficiencies identified through national and international exams (MoNE, 2024a). In an education reform, teachers are seen as strategic change agents (Hargreaves & Fullan, 2009). Teachers are at the heart of the process, transforming abstract policies into concrete student outcomes (Akala, 2021; Unsal et al., 2019). In particular, in reform initiatives aimed at changing teaching programs, it is important to include teachers in all stages of the change process in order to successfully manage the process. (Kirk & Macdonald, 2001). As part of the CoTEM reform initiative, MoNE announced that it would include all first, fifth, and ninth-grade teachers in Türkiye in face-to-face in-service training simultaneously in the first week of September 2024 so that they could implement the innovations brought by the change. It aimed to inform all teachers about CoTEM and to provide them with practical skills through in-service training (MoNE, 2024b). However, the findings of the study showed that not all teachers were able to participate in in-service training. The teachers who participated in in-service training also shared generally negative experiences regarding the training. The study results showed that the teachers found in-service training to be very inadequate in terms of content, time, and place planning, and that they actually gained theoretical and practical skills about the model by sharing knowledge, experience, and materials with their colleagues. These results supported the literature that teacher trainings carried out with the traditional approach based

on knowledge transfer make little contribution to development of teachers (Cilliers et al., 2020; Darling-Hammond & Richardson 2009; Guskey, 2002), and that contemporary approaches that allow teachers to learn from each other were more effective in teacher professional learning (Hilal et al., 2022; Liu et al., 2016; Thien & Yeap, 2023).

Studies in literature highlight the importance of teacher training in improving student outcomes (Hallinger & Kulophas, 2019; Liu et al., 2016; Orphanos & Orr, 2013; Thien & Yeap, 2023). This scientific evidence led many countries to make policy changes in teacher training (OECD, 2019; MoNE, 2018). In recent years, Türkiye has adopted a school-based approach for teacher training. It was documented in policy documents that teacher training should be carried out in ways that allow teachers to interact with each other and gain practical skills (MoNE, 2018). However, the findings of the study showed that, on the contrary, CoTEM teacher preparation training was carried out in line with Türkiye's past habits, indicating that MoNE cannot ensure synchronization between the policies it determined. According to the findings, teachers did not acquire the necessary knowledge and skills for the activities planned within the scope of CoTEM through the in-service training activities organized by MoNE. It is important for teachers to have access to effective in-service training activities in order to develop their skills and, in particular, to improve their competence in the different teaching methods included in CoTEM, which aims to bring about a major change in education (Karjalainen et al., 2022). Indeed, similar to the findings of this study, other studies also indicate that teachers experience difficulties in implementing CoTEM activities and require in-service training (Duyul et al., 2025; Uludag-Kircil & Ulucinar-Sagir, 2025). Teachers' lack of knowledge and skills led them to develop negative emotions, thoughts, and behaviors.

It was understood that the most intense feeling that almost all of the teachers who participated in our study felt about themselves during the change process was anxiety, and the most intense feeling they felt about policy makers was distrust. It was determined that the majority of the teachers who participated in the study thought that CoTEM was not a real change movement and that they turned these thoughts into behavior by not transferring the innovations brought by the model to their classroom practices. In other words, teachers were synchronized in their feelings of anxiety and distrust, in their belief that CoTEM does not contain innovations, and in their behavior of continuing to use their old methods in their classroom activities. Similar to the findings of this study, other studies in the literature also provide evidence that people can synchronize their emotions, thoughts, and behaviors (Ishtiaque, et al., 2023; Lindenberger et al., 2009; McClintock, 1971; Nummenmaa et al., 2012; Stone et al., 2006; Zheng et al., 2020). For example, in a study conducted in England by Moore et al. (2002), it was found that the teachers defined themselves in different ways and felt uneasy in the face of pressure for reform. Kondakci et al. (2015) conducted a study with a large dataset of primary school teachers in Türkiye and examined teachers' readiness for change. The results of the study were impressive. The study proved the importance of some very important emotional and cognitive variables, such as trust and job satisfaction, which actually need to be formed before the change process, in order for the change to be successful (Kondakci et al., 2015). It is known that positive emotions, thoughts, and behaviors of teachers have a great impact on learning experiences and achievements of students (Acton & Glasgow, 2015; Shao, 2023). Based on the results of previous studies, this study led us to conclude that teachers participating in this study could spread their negative feelings and thoughts to their students, thereby reducing the effectiveness of CoTEM.

An education reform often announces ambitious goals (Haug & Mork, 2021; Högberg & Lindgren, 2022). The reforms implemented target not only students, teachers, parents, but also society as a whole due to the widespread impact of education (Hargreaves & Fullan, 2009; Oruc & Ulusoy, 2008; World Bank, 2018). Therefore, a reform in education requires a collective effort and the synchronization of all components of the system. According to Balanov et al. (2009), synchronization is technically a result of the interaction of different systems (p. 2). Arenas et al. (2008) state that synchronization is a

phenomenon that characterizes complex systems. The Turkish education system exhibits the characteristics of a macro system with its large student and teacher population (Ozdemir et al., 2023). Pikovsky et al. (2001) point out that if the systems are intelligently combined, they can start exhibiting common behaviors simultaneously. Based on this, it can be argued that in an education reform, the intelligent integration of all actors (educational materials, employees, policies, units) within the education system with effective planning can enable them to exhibit common behaviors simultaneously around the goals. Otherwise, situations that Pikovsky et al. (2001) describe as phase shift and asynchronization may occur. As a result, a costly reform initiative may turn into a losing battle (Hargreaves & Fullan, 2009).

Some of the findings identified in our research during the implementation phase of CoTEM are similar to the results of other studies conducted on the subject (e.g., Duyul et al., 2025; Kucuk & Kurt, 2025). Uygun and Akgul (2024) conducted a study with social studies teachers and found that teachers emphasized some positive and negative features of CoTEM, believed that the activities planned under CoTEM could not be implemented in the same way due to the fact that not all schools in the country have the same resources, and determined that teachers were not sufficiently involved in the reform process. Similarly, Arslan (2025) found in his research with primary school teachers that schools faced difficulties in implementing CoTEM activities due to a lack of materials. Ulcay (2024) states that schools, especially those in rural areas, may have difficulty implementing the model effectively due to inadequate infrastructure, and that it is important for teachers to receive sufficient training to be able to apply the new approaches required by the model. The results of some studies on previous reform initiatives implemented in Turkey are similar to this study in that some teachers believe that change is not necessary and that the planned changes will not improve student achievement (Unsal et al., 2019), and that change processes occur frequently and create a workload for teachers (Cetin, 2017). In other words, teachers exhibit similar reactions to change processes.

Studies conducted in different countries show that there are some common aspects in the failure of education reforms (e.g. Kaviti, 2018). As in our findings, starting a reform initiative without adequate preparation of teachers, teachers not fully understanding the changes in the curriculum that they will implement in their classrooms, and not being able to create a synchronized understanding of the change (Kondakci et al., 2015; Mulenga & Kabombwe, 2019) are some of the reasons why education reforms fail. Because the success of educational reforms may depend on the competencies, beliefs, and attitudes of teachers during this process of change (Fullan, 2007; Ornstein & Hunkins, 2014). Another reason is that when policy makers decide on a reform initiative, they bring with them a cognitive illusion, an incorrect positive belief that this will be met with the same feelings and thoughts by teachers (Terhart, 2013). Indeed, Mellegård and Pettersen (2016) found in their study conducted in the Netherlands that policymakers introduced a new curriculum as an increase in teachers' freedom, but teachers, who were the implementers, did not perceive this change as real freedom. Other possible reasons include the hierarchical understanding that sees teachers as social creatures and robots that obey instructions, ignoring the impact of their emotions on their behaviors (Cuban, 2011; Kondakci et al., 2015). The latter is especially evident in centralized education systems such as Türkiye (Yilmaz, 2022).

We agree with Haug and Mork (2021) that the needs of teachers need to be understood when faced with new and ambitious goals such as a reform initiative. Teachers appreciate their strategies and expertise, which are based on years of accumulated experience (Seligman, 2019). Teachers understandably prefer the methods they know and their daily routines to new practices. Additionally, schools are challenging environments in many ways, and teachers have limited time due to the large number of tasks they need to handle during a school day (Desimone & Garet, 2015; Haug & Mork, 2021). In fact, the results of the Teaching and Learning International Survey [TALIS] (2018) show that the majority of teachers in Türkiye consider themselves competent in teaching, but they also experience burnout due to excessive

physical and mental fatigue. Therefore, for these and other reasons, it may take some time to convince teachers of the necessity of an education reform and to ensure synchronization among all teachers on the issue (Kent, 2013). Synchronization is a natural phenomenon in which autonomous objects that produce periodic rhythms adjust these rhythms to each other (Eilam, 2019). Education systems produce many periodic rhythms. Examples of these periodic rhythms are the continuous inclusion of students into the education system and their removal from the system as graduates, the employment of teachers as employees and their retirement from the system at the end of their careers, or the teaching of the curriculum of any course and the measurement of gains. In this sense, education systems can be described as autonomous objects that produce periodic rhythms. The fact that these rhythms within the education system move in harmony, in other words, they are simultaneous, reveals synchronization. The synchronized operation of the entire system can also enable teachers to take education reforms more into their scope of acceptance.

As a result, this study enabled us to draw some important theoretical and practical conclusions and offer practical recommendations. The study showed that synchronization theory is a stimulating and useful theory in all processes of education in general and in the examination of an education reform initiative in particular. Thus, it enabled us to examine synchronization, defined as a universal phenomenon, with a phenomenological approach in the context of education reforms. This study was understood that the process of change, which was put into practice in Türkiye in September 2024 and prepared by MoNE officials according to the Turkish culture and introduced as the biggest reform initiative in the history of the Republic of Türkiye, could not be operated in a synchronized manner. Firstly, it was seen that MoNE was not able to prepare teachers for CoTEM in a synchronous manner. This lack of synchronization can act like a domino effect and negatively impact other components of the training. Secondly, it was understood that in-service training was planned inadequately, and it was concluded that synchronization in planning could not be achieved. In other words, MoNE could not convince teachers about the necessity of the change and could not prepare them for the change. This situation led teachers to develop some negative emotional, intellectual, and behavioral reactions. The teachers generally felt a sense of anxiety for themselves and distrust for policy makers. Additionally, they had the idea that CoTEM was not a real change movement, and they turned these thoughts into behavior by not fully transferring the changes brought by the model to their classroom practices. In summary, the teachers showed a kind of passive resistance with feelings such as anxiety and distrust, thoughts that the model was not a change movement, and behaviors such as not transferring the changes to classroom practices. In this case, it was concluded that the teachers were synchronized in showing passive resistance. Teachers' synchronization in passive resistance may lead an education reform to face the threat of failure.

As a result of the research, considering that teachers' support for the reform is a critical precursor for an education reform to be successful (Wang et al., 2020), we recommend that teachers prepare for change in proactive ways in the following processes. For example, the creation of teacher professional learning communities where teachers can share their experiences regarding CoTEM in their schools can be encouraged. We also suggest producing rapid solutions that will ensure synchronization among the stakeholders of education so that the problems that arise during the change process do not negatively affect the success of the students. For example, in future studies to be carried out within the scope of CoTEM, communication channels such as social media accounts and telephone lines can be established thanks to which opinions of teachers are actively evaluated.

6. Limitations

This study, which was conducted with qualitative methods and phenomenological design, has some limitations. It is recommended that the reader interpret the study considering the limitations explained. Firstly, due to the nature of the qualitative method, the study focused on the experiences of a limited

number of participants. Therefore, the results of the study can be evaluated within its own context. In future studies, quantitative studies can be conducted with larger data sets, following other methods in the literature (Borko, 2004). Secondly, the data in the study were obtained through depth-oriented semi-structured interviews. The fact that other data collection methods such as focus group interviews and observation were not used in the study can be explained as a limitation. Thirdly, the design of the study, which only addressed the experiences of teachers regarding a reform initiative, has direct implications. The fact that the experiences of other stakeholders such as school administrators, students, and parents were not included in the study is another limitation of the study. Finally, although necessary precautions were taken to control study bias, the fact that the researchers themselves were stakeholders in the education system may have infected the study with their biases.

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