THE FUTURE OF EDUCATION IN TÜRKİYE

EQUALITY, INCLUSION AND QUALITY

MAHMUT ÖZER

TRT WORLD research centre

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Content

Mahmut Özer

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Foreword

In the 2000s, Türkiye had a massive problem with its education system. With school enrollment rates below 50% in pre-school and secondary education, dealing with access to education was complicated due to headscarf bans, as well as the coefficient regulation which caused many drawbacks, especially for vocational high schools and imam hatip (religious) high schools. Particularly, children from disadvantaged socioeconomic backgrounds, especially girls, were experiencing issues in accessing education. Hence, while many of the countries we are competing with today have achieved enrollment rates of 100% across all levels of education and focus on strengthening educational opportunities, we were grappling with such issues and losing time.

While the state of education in the 2000s was as described, with the political transformation initiated by President Recep Tayyip Erdoğan in 2002, Türkiye has largely compensated for the delays in education over the past 20 years. A massive educational campaign was launched in all regions, provinces, and districts to address the issue of access to education, which resulted in a significant increase in the number of classrooms. Moreover, the headscarf bans and the coefficient regulation hindering access to education were abolished during this period. Additionally, in response to significant societal demands, lessons on the life of our Prophet, the Quran, and religious knowledge were added as 'elective courses' in all schools. In other words, the education system not only rid itself of anti-democratic practices but also became more responsive to societal demands.

Additionally, a multidimensional set of social policies has been consistently implemented each year, ranging from conditional education assistance to student scholarships, from

free transportation to free meal support, to facilitate access to education for children from disadvantaged socioeconomic status, especially girls. In the past 20 years, all these measures have been implemented simultaneously, resulting in at least 95% of the school-age population being enrolled in education at all levels. Thus, Türkiye has compressed the necessary steps of the previous 70 years into the last 20 years, turning its disadvantage into an advantage in transitioning from the first century to the second century of the Republic.

Now that access to education has been largely addressed, it is essential to focus on continually improving the quality of education, and most importantly, strengthening equal opportunities in education. This way, we can make a significant contribution to the development and prosperity of our country. In the new era, it is crucial to enhance the relationship between education and production, as well as the transition between education and the labor market.

Meanwhile, we should also focus more on strengthening the relationship between education and culture, aiming not only to produce academically high performing individuals but also to nurture young people who are well-versed in their language, history, and geography, aware of their responsibilities, ready to take on these responsibilities, and are confident.

This book covers the steps taken to address the areas I mentioned earlier. Initially, it provides a general overview of the past 20 years, extensively examining the transformation in education, and discussing the steps taken or needed for the new horizon. In this context, particular emphasis is placed on the steps taken in 2022. This period has been my term as Türkiye's Minister of National Education, which is why I primarily focus on this period.

In the upcoming period, there is a greater need for awareness of the education system as a whole, and therefore, there is an inherent relationship between early childhood education and higher education. Policies should continuously support this integrity. As I have mentioned in my previous books, policies regarding education systems require systemic approaches. It is evident that approaches that do not consider the entire system can lead to futile results, and even worse, they can produce negative outcomes contrary to expectations. Therefore, by adopting an approach that considers the entire system, ensuring a continuous increase in the quality of education, our country will become much stronger.

In the book, you will notice that I revisit some topics I previously mentioned in different contexts. I have intentionally included these repetitions because the components in the field of education are highly interconnected. Therefore, a singular project aimed at a specific issue can impact multiple areas depending on the level of interconnectedness. Solution-oriented education policies have the potential to facilitate solutions to problems in other areas of education beyond the focus of the project. Conversely, there is also a reverse effect. That is, a wrong education policy can negatively affect not only the area it focuses on but also other interconnected areas. Thus, repetitions are included in the book to illustrate how this effect can occur.

I extend my heartfelt thanks to Hayri Eren Suna for his support in preparing the book. Additionally, I would like to thank the TRT General Directorate and TRT World Research Center authorities for their support.

This book is the English version of my book 'Türkiye'de Eğitimin Geleceği: Eşit, Kapsayıcı, ve Kaliteli' published by VakıfBank Culture Publications in 2023. Therefore, it remains faithful to the original version, and the data have not been updated. I hope

the book serves as a guide for educational administrators by illustrating how we approached problems and the progress we made during my tenure as minister.

I hope that this book will contribute to the ongoing education discussions in Türkiye…

Mahmut Özer, September 2024

Focusing on Connections Instead of Reforms

In life, everything is interconnected, but the strength/intensity of the connection varies from one field to another. These connections are often hidden because they are not well known or have not been sufficiently explored. Consequently, there is a tendency to make the mistake of explaining a field by establishing simple linear relationships or trying to solve problems using these linear relationships. However, because social events are directly influenced by numerous underlying connections/relationships, and because the effects of connections are constantly changing, understanding events in the field often requires non-linear explanations.

A similar situation applies in the field of education. For example, in schools, which are a small-scale example of society, many factors related to students' achievement are interconnected within their own network of relationships. Unseen connections in the social sphere directly affect equal opportunities in education and also directly influence the transition to the labor market after education. One of the significant reasons why educational reforms often fail to achieve the expected impact, despite starting with great claims, is that these reforms often overlook the unseen connections. As a result, many parameters that affect the outcome remain outside the scope of the reform. Consequently, the desired improvement in the process cannot be achieved. When new reform attempts repeat the same approach error, it not only diminishes the motivation of education stakeholders but also leads to skepticism towards every reform attempt. This situation can lead to a decrease in the effectiveness of reforms that actually have the potential to be productive. Ultimately, reforms carried out without adequately evaluating existing connections weaken the education system and repeated unsuccessful attempts at reform lead to reform fatigue in education.

One such connection is the family's socioeconomic status. Children's academic achievements are not independent of their families' socioeconomic status. It is clear that socioeconomic status is one of the most significant factors influencing academic achievement. This is not only due to the school environment, but also to the less visible connections between the child and their peers. The extent of these effects varies, but when they are overlooked, evaluations of outcomes become unrealistic and unreliable. This situation also leads to the establishment of extremely superficial and direct relationships between the examined characteristics, which fails to explain the complex networks of relationships and interactions. Therefore, being aware of these connections when formulating policies in any field not only enhances the efficiency of policies but also provides significant benefits in process evaluations when conducting impact analyses.

Conversely, these multiple connections in the field of education also have the potential to lead to productivity beyond what is expected in problem-solving and improvement efforts. In other words, while a correct improvement step aimed at a particular focus area may provide improvement in that area as expected, due to these multiple connections, it may also bring about unexpected improvements in areas outside the focus (which were not expected to improve because they were outside the focus). Similarly, a misguided step may not only worsen the focus area but may also lead to new problems or exacerbate existing ones in areas outside the focus. Regarding the negative situation, the impact of the coefficient regulation on vocational high schools and imam hatip high schools would be quite illustrative. In fact, the damage assessment or cost of this misguided policy has not yet been adequately conducted in a multidimensional manner.

On the positive side, early childhood education has the potential to provide important clues to understanding these relationships. Early childhood education is a crucial stage in the early development of children's cognitive and non-cognitive skills. Therefore, the developmental differences between ECE attenders and non-attenders when they start primary school have a direct impact on their learning, with ECE-attenders gaining an advantage and being more successful compared to their peers. And this achievement gap widens as they progress through the educational system. The benefits of students who attend early childhood education are not limited to academic achievement; these students are known to have more positive adult skills, higher life satisfaction and better adult abilities. Countries are therefore generally looking for ways to expand and universalize early childhood education in order to strengthen equity in their education systems. As a result, the widespread availability of ECE services strengthens equity in education and consequently reduces the achievement gap between schools.

As noted above, because of the multiple linkages, it is expected that efforts to expand early childhood education will lead to various improvements in related areas, in addition to strengthening educational equity, which has been confirmed by recent longitudinal studies. These studies show ECE attenders tend to stay in education and employment compared to non-attenders. In other words, participation in early childhood education directly contributes to an increase in quality of life. Countries that offer this opportunity to their students therefore have an important mechanism for reducing the number of young people who are not in education, training or employment (NEET).

Another impact of participation in early childhood education has proved that individuals who receive early childhood education

have lower rates of involvement in crime and addiction in their lives compared to their peers who did not receive early childhood education. It is therefore an important asset in the fight against crime and addiction in societies.

On the other hand, easy access to early childhood education can particularly increase the employment participation of single parents and women. When the cost of accessing early childhood education is high, women may especially refrain from participating in employment. Therefore, providing free or very low-cost access to early childhood education has the potential to positively impact women's employment participation.

As a result, education policies that facilitate and promote access to early childhood education not only have the potential to improve the quality of the education system but can also lead to improvements in various areas of life due to these multiple and hidden connections. Based on this example, focusing on education policies that are mutually supportive through these connections and implementing them consistently not only leads to much greater benefits than reforms that overlook the bigger picture but also contributes significantly to the widespread adoption of improvements that will be visible in different areas.

In today's education systems, which emphasizes both achievement and equity, the use of a culture of continuous improvement rather than a major reform is not a coincidence. Therefore, from the first days of my tenure, I declared that I would focus on improvement, which I believe to be more effective, rather than large-scale reforms. With this book, I hope to contribute to the understanding of the contribution of improvement-oriented policies, which take into account both visible and invisible connections, to the education system.

A 20-Year Accountancy

Human capital is the most important and sustainable asset that countries have. Thus, education, which has a direct connection, is the most crucial tool they have in enhancing the quality of their human capital. It is for this reason that countries significantly increased investments in education after world wars. Looking back, we can see that without this investment, it would have been nearly impossible for countries to reach their current developed status from those difficult times. Therefore, ensuring sustainable development, transforming into a knowledge society with a competitive economy, raising the quality and success of human life, establishing social justice, and raising a generation with high levels of knowledge, universal culture, and good health are all critical goals for our country, and education plays a key role in achieving them.

Under the leadership of the Turkish President, Türkiye has embarked on a historic transformation process in various components of the education system since the 2000s. While increasing enrollment rates at all levels of education to make education more accessible, significant efforts have also been made to reduce the number of students per classroom and per teacher, bringing it closer to the OECD average. Thus, this transformation has not only ensured greater universality in the education system but has also facilitated an improvement in quality. In this way, Türkiye has addressed both quantity and quality in its reforms, thereby enhancing the performance of the education system.

One of the main objectives of this transformation process has been to improve educational opportunities. In order to strengthen equal opportunities in education, a wide range of comprehensive social policies have been implemented with determination, including Conditional Education Assistance (CEA), increasing dormitory capacities and scholarships, providing free meals, free

textbooks, and supplementary resources. The implementation of these social policies is crucial for ensuring effective participation in educational activities for all segments of society, especially for students facing various disadvantages. With the support of these policies, enrolment rates have exceeded 95% for the first time at all levels of education, starting from early childhood education.

At this point, it is evident that educational activities have been extended to all segments of society, and universalization has been achieved at all levels of education. The school enrollment rate, which was 11% at the age of 5 in the 2000s, has increased to 99% in 2022. The primary school enrollment has reached 99.63%, while in the lower-secondary school enrollment rate has risen to 99.44%. The most striking increase in enrollment rates is observed at the upper-secondary education level. Thanks to the significant contribution of the 4+4+4 system implemented in 2012, the enrollment rate in upper-secondary education has risen from 44% to 95%. Therefore, the last 20 years represent a period of continuous increase in the participation of our children and youth in education, which is a window of opportunity for our country.

Over the past 20 years, the most significant improvements in enrollment rates have benefited our girls. The participation of girls in education is closely monitored at all educational levels, with the greatest progress being observed at the upper-secondary education level. While in the 2000s, the enrollment rate of girls in upper-secondary education was 39.2%, today this rate has increased to 95%. Moreover, in many provinces where enrollment rates were relatively low in the early 2000s, the enrollment rate of girls surpassed that of boys. Therefore, significant progress has been made in solving the enrollment problem of girls in all levels of education in our country over the past 20 years.

In the 2022-2023 academic year, we continue our education with approximately 1,200,000 teachers and 19,100,000 students in a total of 71,818 schools, including 15,918 preschools, 25,000 primary schools, 18,186 lower-secondary schools, and 12,714 upper-secondary schools, both public and private. As can be seen, the total number of students and teachers in our education system exceeds the total population of many countries today. Achieving a significant transformation in such a large-scale education system requires not only massive investments but also tremendous determination.

The key concepts of the transformation in the education system in Türkiye are equality, inclusivity, and quality. Concrete improvements based on these concepts in Türkiye 's education system have also been highlighted in evaluations by international organizations. The results of international monitoring studies show that despite a significant increase in the number of students, the quality of education has not been compromised. On the contrary, quality has been enhanced through multidimensional improvements.

Therefore, the transformation in the education system in Türkiye has aimed at comprehensive improvement. Hence, despite the tremendous growth achieved in the education system, it has not been at the expense of quality; rather, it has been carried out with a focus on enhancing quality. The most significant evidence of this is the improvement in both enrollment rates and indicators of quality over the past 20 years. Concrete improvements made in Türkiye's education system have also been highlighted in evaluations by international organizations. OECD evaluations emphasize that Türkiye has shown a significant upward trend in PISA performance since 2003. Similarly, according to the PISA 2018 results, despite being one of the countries with the highest increase in the number of 15-year-old students, Türkiye has been

highlighted as the country with the highest increase in scores in Turkish, mathematics, and science literacy.

Another commonly used assessment tool to evaluate the performance of education systems is TIMSS (Trends in International Mathematics and Science Study). Since 1999, Türkiye has consistently improved its scores and rankings in all TIMSS assessments it has participated in. The most significant increase in scores in the fields of mathematics and science occurred in the most recent assessment, which was conducted in 2019. In this assessment, Türkiye surpassed 500 points for the first time in both 4th-grade mathematics and science, as well as 8th-grade science, placing it above the midpoint of the TIMSS scale.

In the current phase, as the Ministry of National Education, we have focused on further strengthening our education system by increasing equal opportunities in education, enhancing vocational education and training (VET) and providing multidimensional support for the professional and personal development of our teachers. These three areas constitute global investment areas that play an effective role in enhancing the quality of education systems today. To strengthen equal opportunities in education, we have particularly aimed to increase enrollment rates in early childhood education and reduce disparities in opportunities between schools. We aim to create a VET system that provides similar opportunities to all students, offers different development opportunities to all teachers, and trains the workforce needed by the labor market, thereby advancing our country's education system to much higher levels. Through all these steps, we will make the Turkish Education System more competitive on the global stage.

The Relationship between Cultural Power and Education in Light of the Development of Education in Türkiye over the Last Two Decade

Mass education emerged globally in the early 19th century and expanded in the aftermath of World War II to include higher education. Many nations, beginning with the United States and Western European countries, made education more accessible to all their citizens while implementing new, large-scale projects to improve the overall educational level of their societies. By the 1970s, mass education had spread to higher education in those countries; the enrollment rate in primary education neared 100%, and the process of provided access to higher education for more than half of the total population.

The driving force behind this expansion was the realization that human capital is the most powerful, long-term resource available to any given country. Increasing the average number of years of schooling per member of society not only contributes to their employability and enhances their skills as adults, but also enables them to make a greater contribution to their country's development. Accordingly, investing in human capital makes a significant impact on economic development as well as social peace and well-being.

Since the Republic of Türkiye's foundation, increasing the schooling rate has been among the stated priorities of almost every government. Significant progress has been made on that front, especially at the level of primary education. It is important to acknowledge, however, that Türkiye lagged behind the Organization for Economic Co-operation and Development (OECD) countries, in particular, by the early 2000s in terms of massification and universalization in education. Whereas many OECD countries had largely completed the process of universalization by the 1950s and thus began to prioritize the quality of education, Türkiye did not initiate universalization until much later. Accordingly, since 2002, several large-scale projects have been undertaken to promote the massification of

education and to ensure that Türkiye could compete with other OECD states in that area.

Between 2002 and 2022, Türkiye made significant progress with regard to almost all educational indicators. Due to the long-standing problems impeding access to education at all levels except primary, the country initially concentrated on improving access to education. Accordingly, additional schools and classrooms were built, prioritizing those provinces and regions where the schooling rate was relatively low. At that point, Türkiye dared to tackle the root causes of the problem, making investments nationwide rather than only in specific parts of the country. As a result, the provinces and regions that once suffered from educational problems were brought up to par with the rest. Massification in education was thus homogeneous across the country.

Improving access to education in a large-scale education system, as in the case of Türkiye, requires significant investment. That is why the Turkish governments made a massive investment to increase the number of schools and classrooms to oversee that transformation. It was also important for those investments to be managed in such a way that they would promote balanced growth. The investments Türkiye made at the time resulted in significant improvements; the government prioritized disadvantaged areas to bridge, rather than deepen the existing gaps. Those investments began to yield results within a rather short amount of time (Özer, 2022a). Accordingly, there was a notable increase in the schooling rate for all levels, from pre-school to higher education. For example, the pre-school enrollment rate for 5-year-old children increased from approximately 11 % in the 2000s to 93% % today. During the same period, the schooling rate at the lower-secondary school level soared from 44 % to 90 % (Özer, 2022b). [The school enrollment rates provided here are not

updated because the original article is used, and they reflect the figures at the time the article was written. As of the end of 2022, the enrollment rate at the age of 5 has increased from 65% to 99%, and the enrollment rate in secondary education has increased from 90% to 95%].

The positive impact of these improvements can be better appreciated by taking a closer look at how the schooling rate has changed at the provincial and regional levels. Thanks to government investments, the schooling rate in many provinces, which was relatively low in the early 2000s, exceeded the national average (Özer, 2022a). Importantly, the gap between various regions within the country has been alleviated significantly. The provinces with the lowest enrollment rates in 2000 experienced an increase in enrollment rates, eventually reaching the same level as the provinces with the highest enrollment rates.

In addition to the investments that Türkiye made at the time, systemic regulations played an important role in the country's progress. Among other things, the decision to extend compulsory education from eight to twelve years had a major impact on the improvement in the enrollment rate. The country has also made notable progress in terms of higher education enrollment. From about 14% in 2002, the higher education enrollment rate has risen to about 44% today.

As Türkiye began to achieve its massification goals, it reviewed its objectives and began to focus on improving quality indicators. As the number of students continued to increase at all levels of education, it attached special importance to two priorities (Özer, 2021a): keeping the average number of students per classroom low and moving the average number of students per teacher closer to the OECD average. Taking stock of the country's progress today, it is possible to say that both goals have nearly

been reached. Whereas the total number of classrooms increased from approximately 300,000 to some 850,000 during the past two decades, the number of students taking classes in 56 % –more than half– of those classrooms remains under twenty-five. At the same time, the country has constantly worked to hire a large number of teachers in an attempt to lower the average number of students per teacher. As a result, the total number of teachers has increased from about 500,000 in the 2000s to nearly 1.2 million today. Thanks largely to this investment, the student-teacher ratio in Türkiye has moved closer to the OECD average at all levels of education.

The last two decades have been critically important for both massification and democratization in education. During this period, Türkiye ended long-standing, anti-democratic practices and began to take into consideration the people's demands. It is a well-known fact that educational systems are responsible for helping students gain necessary, up-to-date skills, and for responding to contemporary demands. As such, Türkiye began to pay more attention to society's expectations of education as it took steps to promote massification. In retrospect, the past twenty years represent a turning point for the country's education system. It is particularly important to underscore that the process of massification in education benefited socio-economically disadvantaged social groups more than the general population. Accordingly, that period is significant both in terms of ensuring equality of opportunity in education and improving the democratization of education.

One of the most significant improvements occurred in the schooling rate among girls. The long-standing problems facing girls' enrollment in school were addressed within the same time frame, and the gender gap shrank, especially over the last decade. In many provinces where girls had been notably less likely to go

to school than boys in the early 2000s, the schooling rate for girls came to surpass the schooling rate among boys (Özer, 2022a). Indeed, the available data indicate that the schooling rate for girls has significantly increased at all levels of education. For example, the schooling rate at the level of higher education was 22.4 % for males and 19.7 % for females between the ages of 18 and 22 in 2007. Those numbers currently stand at 40.5 % for males and 46.3 % for females. In other words, the schooling rate for girls reached the same level as the schooling rate for boys –and even surpassed it at the level of higher education– for the first time during this period.

Over the last twenty years, Türkiye has repaired the damage that the social engineering projects of the previous decades had inflicted on society through education policy. Among those damaging policy decisions was the ban on the religious headscarf. Ironically, the authorities of the time complained that girls could not be sufficiently integrated into the education system - while at the same time imposing a headscarf ban to deny access to the female children of religious citizens. It is a well-known fact that Turkish women faced many challenges in their attempts to overcome that ban, especially in higher education, and many who had the financial means to do so relocated to other countries. The authorities who implemented such policies were not only unimpressed by such dramatic stories, they failed to recognize the role of their restrictions within the context of violence against women and brain drain. Ultimately, Türkiye abolished the headscarf ban, arguably the single biggest obstacle to education, in 2013 and took the additional step of lifting related restrictions on the employment of women –a remarkable achievement for women's socialization.

Another project for structuring the society had imposed restrictions on the access to higher education by high school

graduates who had studied religious instruction or completed VET schools. The coefficient regulation decreases significantly the scores of students in VET high schools and İmam Hatip high schools when they apply for higher education programs. That practice, which dated back to 1999, functioned to discourage high performing students, who could pursue higher education, from attending the İmam Hatip and VET schools. Consequently, academically high-performing students mostly ignored both types of high schools, leaving these schools with an increasingly homogeneous group of students who lacked academic merit and/or could not get into any other school.

This regulation, which remained in force for more than a decade, not only prevented those students who could potentially pursue higher education from receiving religious instruction but also caused serious damage to VET , which carries a high price in the labor market. This policy, which was persistently implemented by the authorities for many years, changed society's perception of VET and İmam Hatip high schools. In this sense, there was a deliberate attempt to determine how society viewed certain institutions in addition to the choices that students made in secondary education. The negative effects of this measure, which the authorities considered to be educational policy, were not limited to the education system. The labor market also suffered the consequences of disrupting the natural flow of students, as the inability to find workers with the necessary qualifications took a toll on Türkiye's economic development (Özer, 2021b). That practice, which undermined the balance of both types of high schools, ended after many attempts in 2012. Meanwhile, it became possible for students enrolled in other types of high schools to take elective courses on the Qur'an, the Life of Prophet Muhammad and religious knowledge. Thus, the Turkish government addressed an important, popular demand by making such courses available to students.

In retrospect, it is quite clear that without the massive investments made in the 2000s, it would not have been possible to discuss the quality of education today, as massive investments aimed at massification would still have been at the top of the education agenda in Türkiye. In other words, it is important to highlight that all of those investments and quantitative improvements laid the groundwork for enhancing the quality of education in Türkiye.

It is crucial to note that Türkiye did not achieve massification in education at the expense of quality. Quite the contrary: there has been steady progress in both massification and the quality of education. Initiatives like the Program for International Student Assessment (PISA) and Trends in International Mathematics and Science Study (TIMSS), which track the performance of international students periodically, confirm that Türkiye has steadily improved its performance against the backdrop of its massification process (Özer, 2021a, 2022a).

The current debate about the quality of education ignores an important aspect: quality is a process. It is important to remember that those educational institutions that are now considered high quality had humble beginnings and became institutionalized over time. The key is to nurture each humble beginning with a focus on quality and a culture of continuous improvement. The expansion or establishment of new institutions is not inherently problematic for the quality.

Given that the OECD countries that we consider good examples and with which we now compete raised their enrollment rates to more than 90 % at almost all levels after World War II and continued to focus on new projects to further improve the quality of their human capital, why was there such a delay in Türkiye? Why was 'quality' touted as the supposed reason behind that

delay? Since other countries had various natural resources and Türkiye's primary resource has always been its human capital, did the authorities fail to predict that such a delay would be extremely costly? In truth, the answers to all these questions relate to the democratization of education that has taken place over the last twenty years. It is possible to argue that the debates over massification and the quality of education in Türkiye are not actually related to quality at all, but covertly serve another purpose. Simply put, the country seems to have intended to make access to education conditional rather than unconditional, and implemented this plan through various engineering projects until the 2000s. The headscarf ban and the use of coefficient regulation that hindered access to education were among the mechanisms of this design.

The relationship between education and cultural power/hegemony has been the subject of debate for a long time (Borg, Buttigieg & Mayo, 2011). In Türkiye, the difference between being in power and exercising cultural power comes up frequently. What is often ignored, however, is that the way to cultural power is through education, and therefore any obstacle that prevents access to education is intended to prevent cultural power from changing hands. First and foremost, the Turkish authorities made no special attempt to increase the schooling rate before 2002 to perpetuate their hold on the existing cultural power. In other words, the massification of education was delayed, under the pretext of preserving quality, to prevent or delay the emergence of co-holders of cultural power and a shift in discourse. The use of coefficient regulation, which aimed to push young people who could potentially access higher education away from the İmam Hatip schools, too, was directly related to cultural power. With this step, the authorities attempted to prevent individuals who would join the labor force and the civil service as college graduates from receiving religious education.

The use of coefficient regulation against VET also created and exacerbated sociological divisions, as children born into socio-economically disadvantaged families were channeled into VET to limit their upward mobility and perpetuate their disadvantages (Özer & Perc, 2020). In this regard, as Bourdieu points out, education was made to serve as a mechanism to promote and maintain social stratification (Bourdieu, 1973).

It is a well-known fact that education systems lay the foundation for the cultural and social capital of cultural power and, accordingly, ensure the reproduction and continuity of social classes (Bourdieu, 1990). It would be suitable to argue that, taken as a whole, each of the various steps that Türkiye has taken in education over the last two decades disrupted the cycle of reproduction established in previous decades, which had perpetuated the lack of equal opportunity and made the (dis) advantaged more and more (dis)advantaged. The steps taken between 2002 and 2022 constitute a rupture that has resulted in the loss of advantage by the existing cultural power holders. Thus, the transformation that occurred in the field of education over the last twenty years not only improved the quality of Türkiye's human capital but also marked the beginning of a new cultural era.

Civilization and ‘Dominant Networks’

We live in a world composed of networks. There are networks at the micro level as well as at the macro level. For example, the brain has complex network structures composed of nerve cells processing information. Similarly, at the macro level, in addition to the networks of culture, art, science, and technology, there are also unique networks of multinational corporations, media, and communication technologies. Often, the network topologies at the micro level exhibit similarities to those at the macro level.

It can be said that states behave like networks, constantly establishing new connections and canceling others. In this sense, states have a dynamic structure. Strengthening and maintaining the existence of a state or a similar entity can be achieved through the continuous updating of network connections. Today, power is distributed among networks. Through the collective behavior of networks, new networks can be formed and power enhancements can be made. Networks, ranging from very small scales to global scales, profoundly affect our lives, even if we are not always aware of them.

The impact of power is determined by the network structure at the level of countries and even civilizations. Everything, from the objects, touched or used in daily life to the forms that surround lives, speaks in the language of the network to which it is somehow connected, and it never leaves people alone. The most important feature of strong networks is that all components share a common language. This allows them to easily activate their subnetworks, thus achieving a high degree of operational flexibility. Just look at the language they speak to understand which network is connected to which. However, dominant networks have long established a domain of legitimacy through their penetration of every aspect of life, which often makes it difficult to understand language differences. This difficulty often stems from people's exposure to or interaction with the

language of the networks they encounter, leading them to adopt and eventually take ownership of it over time. Because networks constantly transform the people they encompass, they strive to make them their own. Therefore, today, as things have become much more complex than before, managing processes is becoming increasingly challenging with each passing day.

At the macro level, networks know no national boundaries. In a globalizing world, networks have also moved to a global scale. Internal and external distinctions lose their meaning in terms of spatial boundaries. This is because the issue is no longer about which country boundary a node or network is within, but rather about its connection to which network or networks. When behavior can be interpreted through networks, it becomes clearer that there is no longer any surprise in the behavior of internal visible networks or nodes. Therefore, the more the networks within your country's borders speak the language of your civilization, the more one can talk about the dynamics of your civilization.

Networks constantly expand with new connections. They create sub-networks (such as science, technology, culture, art, fashion, brands, media, etc.) with the most connections speaking the same language in every field. However, they do not allow the formation of sub-networks with different languages but with similar connectivity in each field. Therefore, democracy does not work in the world of networks. There is fierce competition between sub-networks belonging to each field. Networks perceive efforts to create a new language as a challenge to their own network and respond with aggression. For example, the national process in our country was turned into a challenging process by the dominant network because it was perceived as a challenge. During this process, various seemingly independent sub-networks, such as economic, cultural, foreign policy,

and security issues, launched counter-attacks, sometimes simultaneously and sometimes staggered. Each seemingly separate attack is actually interconnected. In such challenging times, the dominant networks do not feel the need to hide the language of their civilization.

On the other hand, the digitalization of the global communication infrastructure has facilitated the masses' access to processes and encouraged their participation in networks. The commonality of widely used instruments standardizes the masses' demands, consumption patterns, and behaviors. This may make it easier to manage the masses. Consequently, through a wide range of instruments across various network structures, the contact surfaces of the masses have been increased with soft power. As a result, these contact surfaces have been turned into communication channels for soft power at the desired time. Similar to literacy campaigns of the past, digital literacy is a way to increase the influence surfaces of modern times. It makes it easier to influence the masses without the need for coercion.

Therefore, in today's world, battles are primarily fought in the realm of the use of soft power beyond actual warfare. In the modern world, the use of soft power has become not just an option but a necessity. Soft power permeates all areas of life and influences the masses. Soft power is actively used not only by countries but also by all kinds of organizations (networks). Countries increase their power by activating other networks affiliated with them, thereby gaining flexibility in the use of power.

In conclusion, we are living in a period where fierce network battles are taking place. First and foremost, we need to understand what surrounds us as a nation and the kind of world we are living in. Civilization-building requires existence in all areas

of life. Therefore, as a country, we must review our network structures, increase their diversity and reach, and strengthen their integration. We also need to bolster our struggle in the realm of soft power. Most importantly, it is vital to construct a common indigenous/national language within our network structure. Otherwise, it will negatively affect the ability of our network components to act collectively. In this context, the most important instrument remains the education system to reach this goal.

Notes on Civilization and the Language of Culture

Over the past three hundred years, Western Civilization has spread its culture throughout the world and continues to struggle to maintain it. Over the past three centuries, Western Civilization has introduced a new way of life that forms a coherent whole with its practices of thinking, producing, and consuming. The humanity of this new way of life has been debated thus far, and it seems that it will continue to be debated for a long time. However, the current situation is that Western Civilization continues to spread across many parts of the world. Whether because there is no viable alternative or because it produces attractive responses to people's natural conditions and needs, Western Civilization is expansionist and does not tolerate the existence of other civilizations and cultures or the possibility of alternatives.

Over the past century, Western civilization has sought ways to assert itself against cultures that threaten it or have the potential to do so, often without directly confronting them. The most direct and simplest way to do this is to cultivate individuals who have internalized Western culture and associate their own existence with Western civilization, thereby speaking its cultural language. In pursuit of this goal, the West has made and continues to make considerable efforts and investments. Thus, the widespread dissemination of its own culture throughout the world strengthens both the power and defensive reflexes of Western civilization. In this context, it is no longer surprising that the initial reactions and efforts to halt the revival and revitalization of indigenous cultures outside their own territories come not from the West but from non-Western lands, namely from indigenous peoples.

Western civilization naturally includes its currency in the circulation of the culture it penetrates. Whoever controls the currency in circulation directly controls economic processes. Therefore, Western civilization marks as its enemy any place

where its culture and cultural/ideological products do not enter or cannot enter because it expands its scope and ensures its continuity. It only allows other cultures to live on as folkloric elements, to be transformed according to their own forms, and finally to be assimilated into their own form. The West, being so dominant, perceives the revitalization and continuity efforts of different cultures as a challenging attack on its civilization. The extent and severity of the West's attitude towards non-Western cultures determine the scale at which these cultures can be an alternative to it. In this context, it is necessary to reconsider the challenges, obstacles, and areas of struggle that our country has faced in recent years in light of this framework.

In the midst of all this, our country has been striving to emerge as a significant actor in its region and globally, while also seeking ways to establish relationships with its cultural heritage. President Recep Tayyip Erdoğan frequently emphasizes this issue in his speeches. In his speech at the 2016 Presidential Culture and Arts Grand Awards ceremony, he placed a special emphasis on this issue: "If you cannot build the ground to produce your own literature, cinema, and music, you cannot go beyond an individual effort, remain noninstitutionalized, and be confined to a narrow cultural and artistic climate. Unfortunately, these bitter truths confront us everywhere we turn."

Naturally, each civilization positions humanity differently in the world. Morality regulates/determines the relationship that individuals establish with themselves and their surroundings. The forms (culture) produced by civilization and the individuals it nurtures somehow reflect this positioning and therefore morality. The moral language of civilization breathes through its culture. In other words, cultural forms carry and articulate the language of the civilization in which they are produced. Therefore, the cultural heritage of a civilization is hidden/preserved in this

language. That is to say, language is the memory of civilization. It is the mother who transmits this language to the generations and educates the man of the civilization. Thus, the key to the continuity of a civilization is the mother.

In the countries where the language of civilization prevails, people of all levels, regardless of their profession or position, understand each other, can converse with each other, comprehend where they are and what they are doing, do not alienate each other; on the contrary, they trust and empower each other. A common cultural language is formed and spoken. When this language is eliminated, your relationship with your cultural heritage is also severed. Once again, President Recep Tayyip Erdoğan emphasized the importance of this issue in his speech at the opening of the 3rd National Culture Council: "We need national cultural consciousness. Remember, political power can be achieved through elections, votes, and ballots, but for cultural power, we need a very different accumulation, of effort, work, elbow grease, and sweat. We need to rediscover and rebuild our local and national cultural values against cultural alienation and cultural imperialism with a universal language..."

Therefore, in this journey towards building civilization, it is necessary first to understand our inherited civilization, cultural heritage, and language. To understand this heritage, as expressed by İhsan Fazlıoğlu, one must have a historical perspective, a civilizational perspective and a philosophical-scientific theory. The construction of the sphere of life, as defined by Fazlıoğlu, is essential for understanding the historical context of the heritage. Of course, this is a challenging process. However, when we accept this challenge, our ability to transform and build the sphere of life for our civilization today will be strengthened.

Covid-19 Outbreak and Equality of Opportunity in Education

Since 2020, the Covid-19 outbreak we have been exposed to has caused a simultaneous and global shock in almost the entire world. It is estimated that the damage caused by the pandemic in the global economy in just two years amounts to 12 trillion dollars. This pandemic, which has resulted in the deaths of millions of people, has created a major crisis not only in the health, economic and social sectors but also in the education systems. According to UNESCO data, approximately 1.5 billion students were kept away from schools during this period. In other words, about 95% of the global student population could not access face-to-face education, and education systems had to confront a situation unprecedented in modern history in a very short period of time.

In our country, as in the rest of the world, schools for face-to-face education were rapidly closed as part of the fight against the Covid-19 pandemic. During the year and a half that schools were closed, efforts were made to continue educational activities with the support of technology. Although distance education is an important tool for ensuring continuity in education, it has also brought about many discussions in the context of educational inequalities. Indeed, during this period, the situation of whether students had the necessary digital equipment and literacy skills led to a 'digital divide' among students. Furthermore, students were also deprived of the crucial teacher-student interaction and peer education, which are determining factors for effective learning. During this period, all stakeholders recognized the importance of the 'school day' for students, families and teachers. There was also a deep recognition that schools have many different dimensions beyond the learning environment. As a result, the impact of the suspension of face-to-face education on students was not uniform. Studies have shown significant disparities in access to education both between countries and within the same

country among regions. As a result, the socio-economically disadvantaged segments were most affected by this process and educational inequalities were further exacerbated.

For this reason, in the early days of assuming office as Minister, I insisted that we did not have the luxury of keeping schools closed even for a single day; schools should be the first to open and the last to close. Like all countries that were persistent in continuing education, I especially emphasized that we could not wait for the end of cases to reopen schools. Despite the pandemic conditions, we initiated the process of returning to face-to-face education quickly. Indeed, we could not allow educational inequality to be further exacerbated by school closures. Consulting with the Ministry of Health and the Scientific Advisory Board, we took the necessary measures to keep schools open and successfully maintained face-to-face education uninterrupted. At this point, we are pleased to see that the steps we have taken to reopen our schools have contributed to normalization in society.

I emphasized at every opportunity that the true heroes of this process are our teachers, who have undertaken various sacrifices. They have shown us that teaching is much more than just a profession. Even under difficult conditions, they provided support to ensure that their students had access to education. Similarly, this process has highlighted the importance of schools and the vital functions they perform. Indeed, schools are not just places where academic education is provided; they are environments that play a significant role in children's physical, social, emotional, and psychological development. Therefore, the closure of schools not only resulted in learning losses but also negatively affected children's other fundamental developments. Studies have shown that during this period, social and emotional skills suffered as much damage as cognitive skills, if not more. Moreover, it led to weakening bonds with schools, as well as

school absenteeism and dropout rates. Therefore, I emphasized that keeping schools open had transitioned from being solely an educational issue to becoming a national security issue. As a result, our efforts to reopen schools were successful, and we began face-to-face education on September 6, 2021, for all grades and class levels, five days a week. We have been continuing without any interruptions since then.

Throughout this process, while steadfastly continuing with face-to-face education, we also developed numerous remedial support programs to compensate for the 1.5 years of learning loss due to the suspension of face-to-face education. We expanded the capacity of Remedial and Improvement Courses (DYK) and ensured their active utilization. Alongside free textbooks, we printed and distributed 160 million supplementary resources for the first time, free of charge to all students. We established the Student/Teacher Support System (ÖDS) to develop a personalized learning model. By implementing summer schools for the first time, consisting of science, arts, mathematics, and foreign language courses, we enabled our students to make up for their deficiencies. We will continue these same practices, further enhancing and enriching their content.

Technology Addiction and Values

In today's world, the development of technology has gained momentum unlike any other century before. Moreover, the dissemination of these technologies in human life has accelerated as much as the technological advancement itself, covering almost every area. Now, sustaining life without the use of technology has become quite challenging. In summary, technology has penetrated our lives and expanded its influence like never before. As a result, while in the past, generational differences were associated with age, now this distinction has become associated with technology literacy. In particular, social media usage has begun to replace face-to-face communication.

Artificial intelligence and machine learning technologies have become an integral part of digital platforms. Through these technologies, digital platforms have evolved into structures capable of understanding personal needs and offering solutions tailored to these needs. The ability to provide personalized solutions and recommendations has made technology even more indispensable for people. As technology becomes smarter and continues to develop, the relationship between humans and machines enters a different stage and rapidly progresses. As technology becomes smarter, it has come to a stage where it never allows humans to disconnect from it, demanding their full attention. However, what was seen as a natural consequence has transcended far beyond being a matter of democratic choice. The opportunities afforded by using billions of personal data turn online presence from a choice into an addiction. In pursuit of this, all neurochemical mechanisms of addiction are being triggered and scientific findings are effectively mobilized to achieve this goal.

Perhaps for the first time in its history, humanity is being rendered so powerless. This humble state creates a dilemma within itself; indeed, humans become unable to detach from the

technology they have developed, thus developing an addiction. A very small minority that produces and uses this technology, by collecting all the data of individuals, treats the masses of humanity as 'experimental subjects.' In other words, technology is used as a tool to manipulate human behavior by those who develop and use it. And humans, now, are becoming the product themselves. So much so that an 'attention-based economy business model' is being constructed to condition people's attention (Bhargava and Velasquez, 2021). The increasing data processing capacity of technology to provide personalized solutions and recommendations expands its sphere of influence even further. Adaptive algorithms continuously evaluate each individual's data to select and present content that will keep them online. Thus, a mechanism is established that constantly nourishes individual interests. We can express the strength of the chain formed here by saying that as individuals see the content they are interested in, their time spent using it increases; and as individuals use it, data processing mechanisms collect more data about them and offer more appropriate content. Thus, a cycle is established that continuously nourishes and deepens addiction. Of course, in this cycle, the possibility of escaping from the 'personalized' traps tailored to the individual is gradually weakening.

Currently, the biggest challenge facing our youth is falling into various addictions without realizing it. The most significant threat underlying this issue is that these addictions appear to be extremely innocent and voluntary. Most of these technologies are currently free and highly accessible. Yet, countries are not aware of what they are facing, especially when it comes to digital addictions. Here, addiction manifests through behavior. Internet and digital addictions are not often considered addictions because they do not require the consumption of a tangible

substance like substance addiction. Another challenging aspect is the blurred line between being a user and being addicted. Because addictions to these technologies develop over time, they do not necessarily exhibit immediate signs, becoming deeply ingrained habits that are difficult to break. Moreover, families often think that the problem only exists with their own children. However, this is not just a problem specific to one child; it is a global issue affecting all children and youth.

Furthermore, these addictions are a result that global technology producers actively seek. Examining the massive investments made by technology producers in providing products to end-users for free or under extremely favorable conditions today will provide important insights. Therefore, the problem is not with your child. We have entered an era of global interdependencies such as climate change and global warming. At the core of this situation are the problems generated by Western civilization and imposed on humanity.

Initially, internet addiction, which influences thoughts and preferences, gradually begins to change behaviors, giving rise to a new type of addiction. In this new scenario, addiction evolves beyond conventional substance use into behavioral addiction. Behavioral addictions caused by the internet have now become a global problem. While the behavioral counterparts of addiction have been debated in scientific circles for a long time, the American Psychological Association (APA) added the 'behavioral addiction' item to the Diagnostic and Statistical Manual of Mental Disorders (DSM) for the first time in 2013 (Alter, 2018).

The widespread discussions about internet and social media addiction, which have become prevalent in almost all countries, are nothing but reflections of the first visible pangs of this transformation. Once again, the issue is being debated through

the lens of young people. However, all individuals, regardless of age, who use online platforms, applications, or software are exposed to the same effects. Since the internet and social media play a much larger role in the lives of young people, naturally, they are the most affected group. Perhaps the Covid-19 pandemic, during which education was primarily delivered via the Internet and digital platforms worldwide, has accelerated this transformation.

On the road to addiction, the first value that collapses is 'self-control.' As the time spent online increases, self-control gradually begins to diminish. Time management skills weaken. As this ability decreases, real-world tasks and responsibilities start to be neglected. The ability to focus and think deeply, which is crucial in daily life, is gradually weakened. The importance of the offline world is diminishing, and ultimately, individuals are left alone in the virtual environment. It is worth mentioning that this state of loneliness and isolation makes individuals much more susceptible to manipulation. As the time spent online continues to increase, healthy relationships with family and the environment, starting from the family, are weakened. All relationships and social connections in the real world are being rebuilt with new connections and new relationships in the online virtual environment. If you notice, the process of establishing relationships on online platforms is extremely easy and effortless. Therefore, technology now promises to effortlessly find connections that are more 'suitable' to our characters through the personal data we provide to it.

This process is not unique to our country; it is happening in all countries where there is access to the internet. The equipment you need to be a part of this process is diversifying and becoming more accessible every day. This accessibility is forcing a new consequence. Generations are being shaped to act according

to newly manipulated behavioral models online, gradually distancing themselves from their own cultural values. The fact that complaints about young people show common features in all countries also indicates that they have all been exposed to similar processes. However, two points offer the possibility of anticipating the extent of the danger. Firstly, it is observed that the majority of those who produce addictive digital platforms and/or employers implement strict measures to keep their children away from tablets, smartphones, or games by imposing a strict internet diet and preferentially sending them to schools that use low technology (Alter, 2018; Archibald, 2018; Bhargava and Velasquez, 2021; Bilton, 2014). Secondly, young people in low-income communities are exposed to digital screens for about two hours more daily compared to their peers in higher-income communities (Bhargava and Velasquez, 2021).

Important mechanisms such as acceptance, approval, and validation are now strengthened in online environments. The sense of trust and control is weakened, making individuals susceptible to persuasion. Young people in particular sometimes, albeit unintentionally, succumb to online mechanisms of approval/acceptance/recognition in order to avoid exclusion. People's feelings of happiness, sadness, fear, expectations, etc. are increasingly associated with the online world rather than the real world. Virtual relationships are being substituted for real relationships. Of course, this is no easy task, and it is important to note that scientific findings from various fields are used purposefully in the development process of these mechanisms and are made attractive through substantial investments. Thus, the fabric that sustains values, relationships, and mediocrity in the real world is being destroyed, and a new system is being constructed. Moreover, this system is being developed free from the various daily challenges and obstacles that individuals face

in the real world. Unfortunately, empathy, altruism, and concern for others also have no place in this new system.

The planned process has now begun to gain a new dimension with the construction of the 'metaverse' based on augmented virtual reality. It is no coincidence that the users of this realm are digital addicts, as it is an attempt to build a godless new world. Both creating and observing this realm is now the responsibility of Homo-Dijitus (Dağ, 2022). Therefore, as we prepare our children for the digital world, we also see it as our responsibility to protect them from the risks of the digital world. Indeed, if our children, who are now exposed to digital stimuli from all sides, do not develop a healthy relationship with the digital world, we may be setting them up for great physical and psychological harm.

First and foremost, we need to be aware of this: Our children have opened their eyes to a different era, surrounded by a digital world in all aspects. Therefore, they are the 'natives' of this digital world. We, on the other hand, are the 'migrants' to this digital world. As we regulate our children's relationship with the digital world, which they find themselves in from the moment they are born, we must not forget this reality.

When our children deviate from their own will and fall under the influence of the will of the digital world, pathology begins and the condition of 'addiction' arises. This digital addiction leads to the laziness of our children's minds, to the loss of their contemplative and reflective abilities and, in time, to the loss of the characteristics of thinking and acting individuals. That is why we must fight this addiction as a whole.

School Climate

Since a significant part of educational experiences takes place in schools, school is a unit of education that needs to be continuously improved and sustained. The Ministry and all provincial administrations exist essentially to support schools in fulfilling their functions as best as possible. Therefore, an education policy that does not contribute to the improvement of schools and does not reflect on school experiences is merely a superficial promotional ceremony. The main reason why reform initiatives often fail in most countries is that these initiatives do not actually lead to significant improvements in schools. Of course, whether the intention is genuinely to bring about improvement in schools is another matter.

Aware of this reality, we placed the school at the center of all education policies we developed. Our aim was to intervene in the school through various components and continuously improve the school climate. For this purpose, our first step was to rebuild the inspection system that existed in the provinces in previous periods but was later interrupted, and to expand the inspection system to a much broader field than a simple review and investigation area. In the new system, we included inspection and guidance functions at schools and monitoring and evaluation functions at the provincial level. In fact, our goal here was to establish a quality assurance system that would instill a culture of continuous improvement in schools and provinces.

Our second step was to focus on projects that reduce disparities in opportunities between schools. We started with VET high schools, where we implemented positive discrimination by selecting 1,000 schools among VET high schools that were disadvantaged in terms of the opportunities that were provided to them. We provided support to these schools by addressing the deficiencies in their physical infrastructure and enriching the educational environment. We addressed equipment and

workshop shortages in schools and equipped them with new teaching materials. We organized comprehensive training sessions for students, teachers, and school administrators in these 1,000 schools. We also provided educational support to parents of students. We repeated the same approach for the 10,000 schools identified in primary education. In just one year, we have improved the facilities of around 40% of primary schools. In 2023, the 10,000 Schools in Secondary Education project will take the same approach to all secondary schools. By doing so, we aim to minimize inter-school disparities in opportunities and bring them to the lowest possible level.

Another important project supporting the second step was the establishment of libraries in all schools. Within the scope of this project, under the auspices of First Lady Emine Erdoğan, a total of 16,361 libraries were completed in a short period of two months in 2021, and by the end of 2021, there was no school without a library. The scope of the project was expanded at this point, and the focus shifted to enriching the content of existing libraries. Within a year, the number of books in all libraries, from early childhood education to upper-secondary education, increased from approximately 28 million to 110 million. Libraries are also supported and enriched by the creation of digital environments. Another positive and important result of the project is that we have introduced the names of valuable personalities in the fields of science, philosophy, history, culture, art and literature in our libraries built all over the country (such as Alev Alatlı, Murat Bardakçı, Mustafa Kutlu, İhsan Fazlıoğlu, Doğan Hızlan, Erhan Afyoncu, İlber Ortaylı, Yavuz Bülent Bakiler, Erol Göka), allowing our students to become acquainted with these names and their works. Thus, while striving to contribute to our children's cognitive development and academic achievement with the libraries enriched with books, we also provided them

with the opportunity to discover the science, art, and cultural heritage of our ancient civilization.

Our third step was to allocate direct budgets to all schools. Thus, for the first time, a proposal that has been voiced for years in all education platforms, including National Education Summits, was implemented. In preparation for the 2022-2023 academic year, we directly allocated approximately 7 billion TL to all schools, with more budget allocated to schools with greater needs. As a result, all schools were able to meet their cleaning supplies, stationery, and equipment needs for the first time without any intermediary at the local level. In addition, schools were able to carry out minor repairs within the allocated budget. School administrators were also able to respond directly to their teachers' requests for improvements to the school environment. In this way, we not only responded more quickly to the needs of the schools but also helped to develop the leadership skills of the school administrators.

Our fourth step in strengthening schools was to shift the organization of professional and personal development training for our teachers from centralized planning to school-based professional development planning. Now, all of our schools have the opportunity to determine the training needs of their own teachers and utilize the budget we provide to receive the training they desire. In 2021, the budget used for the professional development of all teachers was approximately 10 million TL, while in 2022, under the new model to support our schools, we allocated a budget of 210 million TL to all schools. The step we took yielded results in a short period. In 2020, the average training hours per teacher were 44 hours, while in 2021, it increased to 94 hours, and in 2022, it rose to 250 hours.

Our fifth step was to focus on comprehensive education on zero tolerance for violence in schools, ranging from peer bullying to substance addiction, from digital addictions to behavioral addictions. With this campaign, we organized guidance training sessions and provided counseling services for all students, teachers, and especially parents. Of course, these efforts are not short-term projects. Therefore, we will continue to expand our capacity and diversity in these educational programs day by day. On the other hand, we made an important regulation by including peer bullying in the scope of disciplinary offenses for the first time. Being constantly vigilant against the dangers in this scope is critical for a healthy and safe school climate, and for raising healthy individuals, and therefore, it is a matter of national security for the future of our country.

We are intensively continuing our efforts to ensure that our children and young people grow up as healthy individuals and are protected from tobacco, alcohol, substance, and technology addiction. As part of the development of preventive, curative and supportive services for addiction prevention, we conduct studies to determine standards for ongoing efforts, ensure the implementation and dissemination of these standards, and effectively and efficiently carry out addiction prevention services, the "Addiction Prevention Coordination Office" has been established within our Ministry.

Within the framework of the Türkiye Addiction Prevention Education Program (TAP), we provide guidance and psychological counseling services to students, teachers, and parents at the early childhood education, primary school, lower-secondary school, and upper-secondary school levels on tobacco, alcohol, substance, and technology addiction. Within this scope, we provided guidance and psychological counseling services to a total of 9,969,329 citizens, including 8,070,407 students, 193,627

teachers, and 1,705,295 parents. In 2023, we plan to expand these efforts and especially focus on digital literacy, aiming to provide guidance and psychological counseling services to 20 million citizens.

We continue to provide awareness and education sessions to students and teachers to reduce the negative psychological effects of the Covid-19 pandemic on our children and protect them from challenging life events such as peer bullying and cyberbullying. We maintain a zero-tolerance policy towards violence in our schools. As a result, we have added a new provision to the secondary school regulations to include peer bullying and cyberbullying as disciplinary infractions.

Another step we took was aimed at school administrators. In order to continuously educate, inform, and support the development of leadership qualities, we established the 'Administrator Academy' in Istanbul. As of May 2022, we initiated a series of 'Culture-History and Civilization Consciousness Seminars' for school administrators in Istanbul, providing them with three-day training sessions. This seminar program provided a platform for school administrators from different cities to come together, discuss their problems, and develop solutions, receiving very positive feedback. By May 2023, we aim to offer this training program to all school administrators, and we will continue to support them with new programs. As a result, with the multiple steps we have taken to strengthen schools, the climate of our schools has become much healthier, safer, and more productive.

Values, Curriculum and Teachers

All the steps we briefly touched upon in the previous section aimed at strengthening the school climate to continuously ensure a healthy and safe learning environment. It is also important to highlight the potential of all these steps to contribute to the establishment of a climate where values and etiquette rules are lived, as well as creating a healthy and safe school climate.

The history of discussions on the provision of values education in our education system, and in particular on the instilling of minimum values in students and young people, is longstanding. The problem has consistently been tangled around the curriculum. Therefore, adding the desired subject to the curriculum or increasing its weight in the curriculum has continued to be seen as a solution to possible problems. Past experiences in our education history have always reminded us that the curriculum is a very effective way.

It is evident that the curriculum is of paramount importance. However, it is insufficient in isolation. As is well documented, the acquisition of skills and the modification of behavior necessitate a lengthy process and the implementation of multifaceted interventions. Considering that only 13-15% of the waking hours of the population aged 6-18 are spent in schools, it becomes clear that we need to look at the whole picture. In other words, what is the impact of the out-of-school environments where students spend approximately 85-87% of their waking hours in this age range? Is this impact small enough to be compensated by the impact of the curriculum? Research suggests otherwise.

The advent of globalization has led to significant restructuring of life dynamics on a global scale. The proliferation of the internet and digital opportunities has resulted in a notable restriction on the influence of the family on children. The correlation between the efficacy of the curriculum as a conduit for behavioral change

and skill development in the past and its current limitations in the modern era is stark. Contemporary approaches to behavioral change and skill development have become increasingly diverse, and the network of relationships has become considerably more intricate. Attempting to cultivate abilities through conventional techniques without an appreciation for the intricacies of this intricate structure is often an ineffective endeavor.

Conversely, the transformation of acquired knowledge into human behavior is of greater consequence than the mere acquisition of knowledge itself. Consequently, contemporary educational approaches prioritize skills over knowledge, emphasizing behavioral skills rather than purely cognitive ones. Consequently, how much these values are manifested through individuals in the environments where students live is quite determinative. Upon returning to school, it becomes evident that the extent to which these values are emphasized, reflected, and implemented in various environments, including the classroom and beyond, is of paramount importance. Therefore, the ultimate goal of education is for the values and skills imparted to find expression in societal life. On the other hand, unless we create mediums that allow experiencing values beyond merely transmitting them through the curriculum in the school climate, the curriculum will remain as dry knowledge. Therefore, the issue we are emphasizing is not only the curriculum but especially the internalization of these values and their reflection on the behaviors of teachers and school administrators.

Considering that external factors play a decisive role in students' academic achievement, especially in the early stages of education, the extent to which the values taught in school align with the values experienced outside of school is of great importance. If the values transmitted to students outside of school are in significant disagreement with the values attempted to be instilled in school,

this is likely to impede the processes within the school. We all see and know that the profile of parents in schools determines or influences the school climate. Therefore, in the new approach, we must take this dynamic into account as well.

When we look at the debates and questions we face today, we see that the issue represents a one-sided approach that suggests it can be solved solely through curriculum adjustments. However, over the years, significant changes have also been made to the curriculum with the same goal in mind. Despite this, if the expected outcomes have not been achieved, shouldn't we now focus on additional topics beyond the curriculum?

One of the most significant limitations of the current approach is the narrow scope and uniformity of the knowledge base on the subject. It is evident that action cannot be taken without knowledge. As Ömer Türker pointed out: "When it comes to morality, although the Islamic tradition continues its claims from the classical world, it has moved away considerably from its former position and has regressed to a limited extent in terms of producing moral consciousness at the theoretical level and moral behavior at the practical level, and has lost its capacity to set norms at the universal level. Undoubtedly, the reason for this is that the knowledge that forms the basis of moral theory has lost its productive power in the physical world, society, and metaphysical realms, and has become dependent on minds that produce these realms." (Türker, 2019, p.12).

Therefore, comprehensive studies and research are needed that take into account the new conditions and dynamics of the context within the framework of traditional thought. Furthermore, theoretical studies that conceptualize the subject are almost non-existent. Consequently, moral evaluations tend to be limited to criticisms brought against existing theories and developmental

models. Since existing knowledge is only associated with the curriculum, action is evaluated solely within this scope.

Our education system is of a large scale, with over 19 million students and approximately 1.2 million teachers. As a ministry, we support the professional and personal development of our employed teachers through in-service training rather than focusing solely on teacher training. In other words, the process of training teachers in our education system largely falls under the responsibility of higher education institutions. In this context, it is essential to focus not only on the curriculum that contains knowledge but also on the training process of teachers who will play a role in transforming this knowledge into action. Indeed, teachers have the strongest relationship with changes in student behavior. Therefore, our teachers must fully believe in this process and make concerted efforts to impart these skills to students. Unless a strong relationship is established between the teacher and the curriculum, the impact of curriculum adjustments will be extremely limited. There will be a discrepancy between the formal curriculum and the implemented (actual) curriculum. In fact, much of what is experienced can be attributed to the weakness of this relationship.

In conclusion, the issue of values needs to be approached from a multidimensional perspective, ranging from the curriculum to teacher training, and from the extent to which adults in society and in public spaces internalize and implement values to the changing dynamics of life. Especially considering the multidimensional nature of values, it is clear that long-term and determined policies based on national consensus are needed to instill values in students.

The Impact of Extracurricular Factors on Schools

Schools are active units within society and are directly engaged with their surrounding communities. Consequently, academic achievement is contingent upon not only internal school-related factors but also external factors that extend beyond the school environment. Consequently, students and educators introduce external influences into the school environment. Failing to consider the impact of out-of-school factors when examining the education system may result in erroneous assumptions or incomplete assessments.

This situation resembles the formation of linear correlations without the disclosure of all the connections previously mentioned in this discourse. Regrettably, as is the case in other countries, there is a prevailing tendency to evaluate the education system and schools by isolating them from their interactive environment. There is a misconception that when factors within the school are controlled, any desired outcome in education can be achieved. However, educational performance is dependent on both internal and external parameters. Therefore, effective education policies should consider both internal and external factors to be developed.

Indeed, this reality is much more comprehensively grasped when the building blocks of the body, cells, are the subject of experimentation. Experiments conducted without removing the cell from the body are defined as *in vivo* conditions and provide much more accurate results as they are conducted in the real environment. In cases where this is not possible, experiments conducted by transferring the cells outside the body into a culture environment are defined as *in vitro*, but the results obtained can be interpreted under certain limitations. A comparable scenario can be observed in the context of educational institutions. To assess these institutions holistically, it is essential to consider

them within their natural environment, encompassing all flows and connections. Otherwise, the context is lost, and attaining the desired outcomes becomes challenging.

The majority of failures or very low efficiencies resulting from education policies are actually associated with approaches stemming from an *in vitro* perspective. Developing education policies with an *in vitro* approach and trying to make improvements in vivo conditions are contradictory to the nature of the structure. For example, improvements made exclusively within the school setting are inadequate for achieving an egalitarian education system. Schools are not where inequalities are produced; on the contrary, they reflect the inequalities present in out-of-school environments. Therefore, achieving the desired results requires not only improvements within the school but also significant improvements in out-of-school environments, such as the family environment and the socioeconomic status of the family.

In the majority of cases, the failure to adopt a holistic approach to improvement inevitably results in the inability to achieve the desired level of improvement. However, the issue is not with the in vitro approach itself, but rather with the underlying education policy and how it is implemented in schools. This results in schools and the education system being tasked with responsibilities that exceed their capacity. One of the reasons why countries that perform well in terms of achievement and equality today have much more inclusive education policies supported by social policies.

A similar situation applies to the curriculum issue as well. The assumption that the curriculum is the sole means of addressing societal issues is a reflection of these traditional perspectives and incomplete interpretations. Attributing all societal problems to a lack of curriculum (regardless of whether such a deficiency

really exists) is essentially equivalent to avoiding responsibilities and making problems much more chronic.

In conclusion, just as in other fields, we need to take a much more holistic approach to problems in the field of education and adjust our expectations accordingly. Otherwise, instead of providing effective solutions, the situation may lead to continuous attempts at reform containing the same deficiencies, which can further deteriorate the education system, making it worse, and leaving students and teachers disillusioned with these efforts.

The Source of Educational Inequality: Genetic or Environmental?

As a consequence of the growing trend towards mass education, societies have gained greater access to educational opportunities, accompanied by a parallel increase in expectations regarding the quality of such opportunities. In order to enhance their economic competitiveness, countries are striving to improve the quality of their human capital through the implementation of educational initiatives. In particular, in countries such as Türkiye, where the young population is regarded as a potential source of economic growth, this presents a considerably more significant opportunity.

In the wake of the massification of education, a crucial debate has emerged concerning the question of whether all social groups can access education of comparable quality. An important consequence of this situation is that despite an increase in access to education, there are considerable variations in the benefits that individuals derive from their education. As previously stated, along with the increase in access, ensuring the desired quality for all individuals is also important for the desired improvement in the quality of human capital. In the United States, the famous 'separate but equal' doctrine, which legalized discrimination against black citizens, was ended by the Supreme Court in 1954 as a result of the strengthening of citizenship rights over time. Thus, it became legally possible for white and black students to attend the same schools. Nevertheless, the mere establishment of legal equality does not guarantee that Black and white students will have access to the same educational opportunities. A decade after the Supreme Court's decision, the American Congress requested a report to be prepared to examine educational equality. In this context, the Coleman Report, which was prepared, became a turning point in education debates, as it strikingly demonstrated the effects of students' socioeconomic status and races on their academic achievements (Coleman et al., 1966).

The increasing demands for the rights of various social groups, especially women and blacks, in the 1960s, brought discussions of inequality in education to the forefront. Additionally, during these years, the individual and societal benefits of education became more prominent, and it was during this time that the theory of human capital was formulated. These debates began to be reflected in the reports of international organizations such as the World Bank, UNICEF, and the OECD. In this context, it has long been debated that non-school factors are determinative in the emergence of inequalities in education, among which the socioeconomic status of students are of critical importance (Darling-Hammond, 2010; Özer, 2020a).

It is widely acknowledged that children progress through a series of fundamental developmental stages in a relatively predictable manner. However, it is important to recognise that each child will exhibit distinctive characteristics and patterns of development throughout this process. The environments that children encounter during their formative years, from the home to the school setting, undergo significant changes, and their developmental trajectories can vary considerably. At the outset of their schooling, each student demonstrates a unique set of skills, which play a pivotal role in their subsequent academic achievements. These differences, contingent on the environments to which students are exposed, originate from socioeconomic disparities, given that socioeconomic status is associated with a multitude of parameters about family income, education level, and home environment. On the other hand, students' skill differences influence both parents' and teachers' expectations of achievement, and differences in expectations can somehow affect achievement. Consequently, without necessary precautions, advantages or disadvantages during the early childhood period persist during school years, with advantages further enhancing

advantages and disadvantages exacerbating disadvantages.

In education systems, the segregation of students into different types of schools based on academic achievement or ability at different ages serves to intensify the strength of advantages or disadvantages. Prior to this stage, there may be students with different academic achievement levels in the same school or class, but after school track, schools and classes have homogeneous clusters of students in terms of academic achievement (Bölükbaş & Gür, 2020; Cingöz & Gür, 2020; Özer & Perc, 2020; Suna, Tanberkan & Özer, 2020; Suna et al., 2020a, 2020b). This, in turn, gives rise to diminished expectations of achievement among teaching staff at the class and school level, with the consequence that the learning environment becomes increasingly disadvantaged. The effects of this advantage and disadvantage situation extend beyond school achievement to the post-school period. Consequently, the current situation exerts a significant influence on the eventual outcome.

Consequently, despite the expansion of educational opportunities due to massification, all social groups are unable to achieve the desired outcome of access. In fact, this discussion is linked not only to early childhood education but also to cultural and social capital differences, with educational institutions' structures being noted for their ability to leverage the socioeconomic status of affluent communities into advantages, thereby perpetuating class differences (Bourdieu & Passeron, 2000).

While investigating the reasons for the increasing gap that emerges in early childhood education and mechanisms to compensate for it, studies on the genetic origins of student achievement have added a different dimension to the ongoing Nature vs. Nurture debates (McAdams & Olson, 2010; McCrae et al., 2000; Robert & Wood, 2006). In these debates, some argue

that success and failure are associated with genetic makeup, while others, in a more moderate approach, suggest that genetic makeup alone does not dominate this process, and that success is contingent upon the relationship between genetics and the environment. In fact, in these discussions, both sides acknowledge that genetic makeup is the primary determinant. The moderate view acknowledges the importance of the environment in this development and its influence on genetic makeup, but implicitly suggests that genetics fundamentally determine the maximum level of capacity, with the environment merely providing the opportunity to fulfill development towards this maximum level (Richardson, 2017). Therefore, this article briefly addresses whether inequalities in education are genetic (i.e., individual) or environmental/structural.

Genetic and Environmental Influences

In debates regarding the impact of genetic and environmental factors, it is crucial to determine whether there are advantageous genes associated with intellectual and cognitive abilities and whether these are inherited. If differences in achievement can be explained by genetic variations, this can direct research towards the possibility of using genomic data to predict individuals' educational outcomes (Sah et al., 2018). In this context, the source of societal inequalities is linked to an individual's genetic composition. Conversely, if the impact of education in mitigating these disparities is indeed minimal, or if educational opportunities perpetuate existing inequalities, it is imperative to elucidate the underlying mechanisms through which socioeconomic status influences educational outcomes (Thomson, 2018). At this point, research is focusing on the interaction between genes and the environment in the context of socioeconomic characteristics. On one hand, efforts are being made to determine the relative influence of genetics and the environment on personality

development, while on the other hand, attempts are being made to understand how these rates of influence change over time/age (Briley & Tucker-Drob, 2014).

Some studies have highlighted the pivotal role of age 30 in personality development, proposing that personality traits tend to remain relatively stable after this age (McCrae & Costa, 1994; Terracciano, Costa, & McCrae, 2006). Personality traits, by definition, are crystallized structures, but what is being referred to here is that these traits become less prone to change after the age of 30. However, studies emphasizing personality plasticity highlight that there is ongoing cumulative continuity in personality development, that it is never completed at a certain age, cannot be limited by age, and is open to development along with the environment (Briley & Tucker-Drob, 2014). Therefore, genetic and environmental influences continue to interact in shaping personality development (Johnson, Penke, & Spinath, 2011).

The influence of genetics and the environment on the development of these traits is primarily studied using twin studies (Briley & Tucker-Drob, 2014; Kendler & Baker, 2007; Klahr & Burt, 2014). In one study conducted with twins, it was shown that as age increases, the heritable dimension of personality decreases while environmental influences increase (McCartney, Harris, & Bernieri, 1990). However, in a study by Briley and Tucker-Drob (2014), it was demonstrated that both genetic and environmental influences increase on personality development, with genetic contribution to phenotypic stability remaining constant throughout life while environmental contribution increases. This study underscores the substantial role of environmental factors in shaping personality traits, suggesting that a considerable proportion of the observed variance in these traits is not genetically determined. The rapidly increasing number of environmental factors with which

individuals interact on a daily basis in today's world plays a role in potentially increasing the influence of environmental factors. Particularly, global technological advancements over the past twenty years have significantly increased the number of environmental factors individuals encounter, making their roles in daily life much more significant. It is also likely that this change affects personality traits that distinguish individuals from others and make them unique.

Similar contradictory situations regarding the influence of genetic and environmental factors are observed concerning cognitive abilities. It is initially proposed that genetically advantageous behaviors prompt individuals to select more beneficial environments for their own growth and development, which in turn facilitates the further advancement of their cognitive abilities (Tucker-Drob, Briley, & Harden, 2013). This tendency is also evident in intelligence, where it is stated that individuals with high IQs also choose environments that contribute to the development of their IQs (Dickens & Flynn, 2001). This approach actually emphasizes the freedom/autonomy of the individual in choosing environments related to their development It is therefore proposed that individuals be permitted to freely choose their educational environments, including their schools, classes, and out-of-school learning activities, in order to optimize their development (Tucker-Drob, Briley, & Harden, 2013). This also implies an educational approach that is centered on the student. However, the discussion of the potential outcomes for the success or failure of disadvantaged children if they are left to their own devices is absent from these debates.

Conversely, the influence of genetic makeup is not emphasized, yet it is observed that individuals demonstrate a positive correlation between cognitive function and age, with cognitive performance increasing as years of education increase and the risk

of dementia decreasing. It is also emphasized that socioeconomic background affects both educational attainment and cognitive development in this context (Lövden et al., 2020). All these contradictory findings regarding the effects on personality development, education, and IQ are extensively addressed by Richardson (2017), and particularly studies that exaggerate the effects of genetics are presented as efforts lacking scientific basis and aimed at forming a new ideology, based on the data.

Social Networks and Inequalities

In emphasizing the significance of early childhood education, there is frequently an association established between cognitive skill performance at a very young age and subsequent achievements in later years. For example, Feinstein (2003) suggests that skills at around age two can predict educational attainment at age 26, while Cunha and Heckman (2006) argue that about half of the differences in achievement in later stages of life stem from factors active until age 18. These relationships are frequently conceptualized in a causal framework, wherein a cause-and-effect relationship is posited. However, for a causal relationship to be established, all parameters need to be controlled, which is not possible in research covering such long periods of life. On the other hand, relationships established in this way overlook how factors, connections, and social networks beyond education and skills are also important in life achievements. In such research, possible 'mediator' and 'moderator' variables are not taken into account, and conclusions are drawn based on relationships between two variables. Therefore, in this section, the effects of social networks and connections on achievement will be briefly discussed.

The alignment between individuals' skills and job positions, known as skill matching, has been a topic of discussion in labor

markets for many years (Özer & Suna, 2020). In this context, pioneering studies conducted by Granovetter (1973, 1974) have demonstrated that employability in labor markets is directly correlated with an individual's social network connections and that these connections are more effective than formal channels (such as resumes and skill-based applications) in facilitating job searches. Recent research findings also indicate that friends and social networks are much more effective than conventional job search channels (Burks et al., 2015; Gee, Jones, & Burke, 2017; Gür et al., 2012). In other words, social networks play a role in job searches that extend beyond the individual's human capital. This is illustrated by the adage "it's not important what you know but who you know" (Montgomery, 1991). A substantial body of research has yielded comparable findings on this subject (Arrow & Borzekowski, 2004; Burks et al., 2015; Calvo-Armengol, 2006; Gee, Jones, & Burke, 2017; Hurst, 2016). The role of networks in perpetuating social inequalities is a pivotal factor (DiMaggio & Garip, 2012).

The renowned sociologist Robert K. Merton (1968) actually introduced the importance of connections and social networks to sociology through the Matthew Effect. According to this effect, in the absence of intervention, advantage tends to increase advantage, and disadvantage tends to increase disadvantage. For example, it has been shown that the positions of scientists in social network structures directly influence their publications and the citations they receive (Perc, 2014). Young scientists receive more citations compared to their peers when they publish with well-known scientists in their fields who have a large number of connections, and this advantage is reflected in their other publications as well (Li et al., 2019). Therefore, young scientists endeavor to increase their connections with renowned scientists in their field to enhance their advantages in their scientific

careers. This situation, on the one hand, exacerbates inequalities in the field of science, while on the other hand, it continuously enhances the advantages of recognized groups.

This is also observed in education, known as the Matthew Effect. Advantages in the early childhood period become increasingly reinforced during school years. Renowned American education scientist E. D. Hirsch (2007) uses this effect to explain inequality in education, emphasizing that children from socioeconomically advantaged backgrounds come to school more prepared, become increasingly successful in school, and widen the gap with other students over time. The tendency of these students to choose schools that will further enhance their advantages and their higher presence in these schools actually explains the mentioned effect. Numerous studies have been conducted on the Matthew Effect in education (Özer & Perc, 2020; Reschly, 2010; Stanovich, 1986; Suna et al., 2020a; Walberg & Tsai, 1983). Ultimately, this effect manifests itself as differences in academic achievement between schools in education systems, and educational inequality is associated with the extent of these differences.

Conclusions

In almost every country, educational inequalities continue to dominate the main agenda of education discussions. An accurate identification of the causes of inequalities has a direct impact on the policies to be developed. It is observed that there are many dimensions of inequalities in society, and they are associated with numerous factors beyond education. Studies on the effects of social networks on societal inequalities demonstrate that the issue is much more complex. In particular, it is observed that inequalities increase further when individual differences are deepened through social networks (DiMaggio and Garip, 2012).

Students' academic achievement in school is influenced by numerous factors both inside and outside of school, which interact in a nonlinear way. In other words, inequalities in education are multidimensional and constitute a societal and structural issue (Carter, 2018; Özer, 2021; Özer, Gençoğlu, & Suna, 2020). Reducing this issue to an individual dimension prevents seeing the whole picture (Özer, 2020b). Particularly, discussions related to genetics overlook this multidimensionality by attributing success or failure solely to the individual, thus perpetuating inequality and even viewing the potential cost of steps toward resolving inequality as a burden on society. In this case, social inequalities will continue to persist and reproduce themselves through education. Additionally, attempting to explain a systemic issue within society solely through genetic factors oversimplifies it to a level that is too basic and uncontrollable. Therefore, in any society, educational policies aimed at ensuring access to quality education for all individuals, regardless of their socio-economic background, are essential to reducing inequalities.

As a result, success in life is not only related to education and acquired skills but also implicitly linked to individuals' connections and social networks. However, the contribution of social networks to success is not as overtly apparent as in education; it operates more covertly. Therefore, all these studies on social networks and connections challenge long-standing assessments of achievement based on education and skills alone.

The Strengthening of Equal Opportunities in Education

It is well known that equal opportunities in education constitute the main focus of all education systems today. Ensuring equal opportunities in education requires the development of support mechanisms to provide full access to education and ensure that all stakeholders equally benefit from educational opportunities. In this context, having the same rights on paper for all educational stakeholders is not sufficient for equal opportunities; there is a need for facilitative mechanisms to ensure that disadvantaged stakeholders can benefit from the opportunities provided.

On the other hand, equal opportunities in education cannot be achieved solely through access to education. Since we are dealing with people, factors outside of school also directly affect school experiences and, consequently, equal opportunities. As mentioned in the previous section, in many cases, out-of-school factors can be much more decisive in educational performance. However, this section will discuss the steps taken to strengthen in-school factors to enhance equal opportunities in education.

We continue our efforts to ensure that educational services, one of the most fundamental public services, are widespread and accessible. We aim to bring the enrollment rates in early childhood education up to the OECD averages. As of 2020, Türkiye had the lowest participation rate in the 3-5 age group among OECD countries. In this context, we had initially targeted to open 3,000 new kindergartens in addition to the existing 2,782 kindergartens. We are pleased to have doubled this target within a short period of one year, bringing 6,004 new kindergartens into service. In other words, we achieved the success of nearly tripling the existing kindergarten capacity in Türkiye within just one year. As a result, within a short period of one year, we increased the enrollment rate for 3-year-olds from 9% to 16%, for 4-year-olds from 16% to 38%, and for 5-year-olds from 65% to 99%. Thus, we achieved our goal of ensuring that all our students receive at

least one year of early childhood education before compulsory education. Our target for 2023 is to increase the enrollment rate for 3-year-olds from 16% to 50% and for 4-year-olds from 38% to 70%. In this way, we will reach the OECD average enrollment rate for the 3-5 age group in early childhood education by 2023.

With the 4+4+4 regulation implemented in 2012, which made secondary education compulsory, we have achieved significant improvements at the secondary education level. A year ago, the enrollment rate in secondary education was around 90%. Over the past year, we focused on reducing absenteeism and dropout rates in secondary education. In this context, we actively implemented numerous projects. In these projects, we began closely monitoring our students' attendance. The widespread establishment of vocational training centers and improvements at the provincial and district levels based on the High School Entrance System (LGS) data significantly contributed to reducing continuous absenteeism and dropout rates among students. All these efforts have borne fruit in a short period of time, with the upper-secondary school enrolment rate rising from 90% to 95.06% in just one year.

A comprehensive project has been initiated with the objective of achieving a 100% enrollment rate in secondary education within the next year. The objective is to reach all young people of secondary school age who are currently not enrolled and to provide them with suitable educational options that align with their circumstances. As part of this initiative, an early warning system was established in 2023 to identify students at risk of dropping out at all educational levels. Additionally, a tracking system for out-of-school youth in the relevant age group. This system has further improved our enhancements. In the weeks following the start of the project, the enrollment rates increased

from 95.06% to 97%. With these efforts, our goal is to ensure that all children of school age can sustainably connect with education.

o enhance equitable access to education, our objective is to diminish discrepancies in the allocation of resources among educational institutions. Empirical evidence indicates a substantial correlation between the resources and opportunities made available by schools and the academic performance of their students. Consequently, an increase in disparities in resource allocation between schools may result in the emergence of achievement gaps among the student population. The profound influence of schools on students underscores the necessity for a concentration on school-based enhancements within the broader educational framework.

Significant investments have been made to achieve universal access to education while also improving quality. During this process, our educational infrastructure has been continuously strengthened to reduce the number of students per classroom. This has allowed teachers to spend more time with students, which is especially important for disadvantaged students. I want to highlight that these improvements have been accomplished despite a significant increase in the number of students. Thanks to the new classrooms being built, the number of students per classroom is decreasing at every level of education across the country.

On the other hand, due to the significant increase in the number of students enrolled in education, especially over the last 20 years, a considerable number of teachers have been employed to reduce the average number of students per teacher. While the number of teachers was around 500,000 in the 2000s, approximately 750,000 new teachers have been employed in the last 20 years, increasing the total number of teachers to 1.25 million. For the first time,

the average number of students per teacher has approached the OECD average. Considering that this index is regarded as an indicator of the value attributed to education by the OECD, IEA, and many other international educational organizations, it is clear that education in Türkiye has been given significant importance and investment.

We have completed the '1,000 Schools Project in Vocational Education and Training' and the '10,000 Schools Project in Primary Education' to improve educational environments and strengthen equal opportunities by reducing disparities between schools. We have met all the maintenance, repair, equipment, technological infrastructure, and material needs and demands of the schools covered by the project. Additionally, we have organized seminars for teachers and administrators to support their professional development, provided guidance sessions for parents, and conducted local and central training sessions for students on topics such as zero waste, climate change and the environment, combating addiction, cyberbullying, beneficial use of technology, and other current issues. Additionally, we have organized courses through public education centers for the parents of students in these schools. We have also provided support programs for parents who have discontinued their education to help them complete their education. Therefore, we have established mechanisms to support all stakeholders in these schools and have laid the groundwork necessary for comprehensive improvement.

In 2023, we launched the '10,000 Schools Project in Secondary Education,' which was initiated to reduce discrepancies between educational institutions by incorporating all secondary schools into our support program.

We continue to provide the Remedial and Improvement Courses (RYC) service, which has been successfully maintained for

years, to compensate for our students' learning losses and offer them the opportunity to address their deficiencies. Thus, our students have the opportunity to retake any courses they wish if they so desire. In recent years, we have also taken significant steps to improve the quality of these courses by launching the 'Monitoring and Evaluation Application.' The outcomes of this comprehensive nationwide monitoring initiative are leveraged to optimize the efficacy of our remedial and improvement courses.

Furthermore, we continue to implement the Primary School Remedial Program (PSRP) nationwide for students attending the 3rd grade of primary school who, for various reasons during the academic year, fail to achieve adequate proficiency in reading, writing, comprehension skills, and basic arithmetic operations with natural numbers. This program plays a crucial role in providing early support to students who fail to meet the expected competencies in Turkish and mathematics.

As is known, our Ministry has been distributing textbooks free of charge in all schools, classes, and grades for the past 20 years to increase equal opportunities in education. During this period, our Ministry has distributed approximately 3.5 billion textbooks. In the 2022-2023 academic year, 153 million textbooks were also provided to our students free of charge.

In light of the ongoing pandemic, the Ministry has introduced a novel initiative. To address the learning losses incurred by students at all educational levels, the Ministry has commenced the preparation of supplementary resources. Thus, for the first time, we printed and distributed 160 million auxiliary resources free of charge to our students at the beginning of the 2022-2023 academic year.

In 2022, we continued the free meal program by increasing its capacity. Primarily benefiting students in transportation

and those staying in dormitories, at the beginning of 2022, 1.5 million of our students benefited from this opportunity, and we prioritized students in early childhood education to increase this number to 1.8 million. By the end of 2023, we aim to provide this support to all early childhood students. Therefore, we aim to increase the number of students benefiting from the meal support to over 5 million.

In a pioneering initiative, we have launched a summer school program to enhance equal opportunities in education. Summer school programs are also implemented in various countries, particularly in response to the academic and social skill deficits observed in students as a consequence of the global pandemic caused by the COVID-19 pandemic. In this context, two distinct summer courses were initiated at our Science and Art Centers (BİLSEM), one in the field of science and the other in the field of art. In a pioneering initiative, the inaugural 'Math Summer School' was launched as part of the Math Campaign project. This venture employed a game-based approach to mathematics education, benefiting approximately 1 million students across the four participating areas. Additionally, an English summer course was introduced to facilitate foreign language learning. The overwhelming response from students and parents has led to the decision to continue this programme not only during the summer vacation period but also during other academic breaks.

To reduce disparities between schools and especially to support our students in developing their cultural capacities, we launched the 'No School Without a Library Project' on October 26, 2021. By the end of the year, we completed the installation of new libraries in 16,361 schools. Consequently, the education system is now complete, with no remaining schools lacking a library. Conversely, considerable progress has been made towards enhancing existing libraries, augmenting their content, and

fortifying them. We aimed to reach 100 million books in school libraries by the end of 2022. In 2022, we increased the number of books in school libraries from 28 million to 110 million.

To guarantee equitable access to education, it is imperative to not only diminish discrepancies between educational institutions but also to reduce disparities between geographical regions. In this regard, we have taken a new step by deciding to transform village schools into active education centers that both our children and adults can benefit from. On one hand, by reopening idle schools, we ensure that our children receive education close to their homes. On the other hand, by transforming village schools into adult education centers, we promote lifelong learning approach. With the implementation of the 'Village Life Centers Project,' we have transformed approximately 2,400 unused village school buildings into areas serving various needs such as preschools, primary schools, training centers, libraries, and workshops according to demand. The project has placed a particular emphasis on the provision of courses in agriculture and animal husbandry for adults in rural communities. These courses have been attended by 170,000 individuals in the relatively short period since their inception. The completion of the project is scheduled for 2023, with the opening of all village schools under the project's remit.

To reduce disparities between schools and enable schools to meet their own needs, we implemented the 'School Budget Project' before the 2022-2023 academic year. For the first time, all our schools were provided with direct financial resources to identify and meet their needs independently. We allocated a total budget of 7 billion TL to all schools, allocating more resources to those with greater needs. This ensured that the cleaning, stationery, minor repairs, and equipment needs of our schools were promptly and locally met. We will continue this practice in 2023 to further strengthen our schools.

Inclusive Education: Special Education Supports

Our endeavors to guarantee the inclusion of individuals with special education needs in all facets of social life, to ensure they have equal access to educational opportunities, and to facilitate their integration into societal life are ongoing and intensifying. It is crucial for these students to receive education tailored to their needs within the scope of equal educational opportunities. In this regard, 334,541 special education students receive education through inclusive education/integration with their peers in the same classroom. Additionally, 59,635 special education students receive education in special education kindergartens, implementation schools at three different levels, and special education VET schools. Furthermore, education services are provided to 993 students in hospitals and 10,578 students at their homes.

Under the auspices of First Lady Emine Erdoğan, the 'Special Materials for Special Children Project' has been initiated to meet the educational material needs of our special education students. So far, approximately 550,000 teaching materials have been delivered to our schools within the scope of the project. By the end of 2023, we will increase the number of teaching materials to 1 million within this scope.

In our country, 1,000 EVKİTs (Home Education Kits) have been prepared for students with moderate to severe intellectual disabilities and autism, consisting of 800 kits for students with intellectual disabilities and autism, 100 kits for students with visual impairments, and 100 kits for students with hearing impairments. These EVKİTs, consisting of a wide variety of materials, have been distributed to students receiving home education in all 81 provinces of our country.

In order to enhance the quality of education services provided to individuals with special education needs, we of 5 Skill

Application Areas, namely visual arts, music, gardening and animal care, physical education and sports, and sensory and motor development. The standards for these Skill Application Areas have been determined and implemented in our special education practice schools.

A total of 788 Skill Application Areas have been established in 345 special education practice schools to support students in learning by doing and experiencing different skill areas. These include 100 visual arts, 100 music, 288 gardening and animal care, 120 physical education and sports, and 180 sensory and motor development practice areas.

A total of 899,824 pieces of field materials have been sent, including 72,500 for visual arts, 20,600 for music, 64,224 for gardening and animal care, 302,760 for physical education and sports, and 439,740 for sensory and motor development practice areas, to a total of 788 Skill Application Areas across 345 special education practice schools.

For students with special education needs studying in different regions of our country, we have established a total of 1,740 special education facilities nationwide, including 637 support education rooms, 214 special education classrooms, 291 practice houses, and 598 VET workshops. These facilities adhere to standardized criteria. In 2023, the objective is to continue the establishment of new support education rooms and new special education campuses, while also increasing the number of skill application areas and VET workshops.

A "Class Guidance Program" has been developed at each grade level, from early childhood education to higher education, to structure guidance and psychological counseling services in a holistic, comprehensive, and developmental framework. This framework is tailored to the needs of the education process,

which is an integral part of the teaching-learning process.

Another focus area for us is to expand psychological support mechanisms throughout Türkiye and improve educational diagnostic processes. To achieve this goal, we increased the number of guidance and research centers serving nationwide to 282. Feedback from the field has highlighted the need for physiotherapists in the diagnostic and support process for many years. For the first time, we appointed physiotherapists to guidance and research centers, with 262 physiotherapists appointed, providing multidimensional assessment in educational evaluation and diagnosis services, thus enhancing service quality.

With the amendment we made in the Regulation on Access to Education by Transportation, we introduced the opportunity for students with special needs who are enrolled in special education schools and institutions and benefit from inclusive education services to be transported to the institutions where they received education for the first time during this summer period, enabling them to continue their education. This represents a significant advancement in the conditions of our special education students and the promotion of equal opportunities in education.

In a pioneering initiative, we established Disability Vocational Training Centers to provide continuous education support to citizens over the age of 18 with disabilities. In a short period, we established these centers in 70 provinces, where disabled adult citizens and their families found the opportunity to develop their life skills in a warm environment. This practice, which was welcomed with great satisfaction by our families, will be expanded to all 81 provinces by the end of 2022 and to all districts by the end of 2023.

Supporting Special Talents

We persist in our endeavors to educate individuals with exceptional abilities, which we consider of paramount importance for the creation of added value for our country. This is to be achieved through the strategic areas of our country, including science, culture, art, industry, and technology, to attain a high level of academic excellence. We increased the number of Science and Art Centers (BİLSEM), which was 184 in 2020, to 228 in 2021, and to 375 in 2022. By facilitating access to BİLSEM, we increased the number of students benefiting from these centers. While the number of students receiving support education from BİLSEM was 67,375 in 2021, this number increased to 86,703 in 2022. In 2023, we aim to facilitate access to BİLSEM by opening BİLSEM centers in all districts.

A total of 160 workshops have been established, comprising 114 in 17 thematic areas and 46 in 12 fundamental areas. These have been created following the requirements of BİLSEM centers. Under the "Strengthening the Infrastructure of BİLSEM Centers" project, we have completed the installation of 100 workshops and 50 libraries. We are also continuing preparations for the educational programs of workshops established in 17 different fields such as artificial intelligence, digital design, robotics, game animation, and mechatronics. The diversification of workshops is a priority, as BİLSEM centers have been opened for the use of all students for the first time in summer schools.

In line with the developmental guidance approach, aiming to support the self and vocational development of BİLSEM students and to assist them in making career choices that match their potential, we have created the first sequential and holistic "BİLSEM Career Guidance Programs" in Türkiye. Additionally, to support students' social, emotional, and academic development, we have prepared the "Self-Regulation Psychoeducation Program" and the "Emotion Development

Support Psychoeducation Program."

While increasing the number and accessibility of BİLSEM centers on one hand, we diversified the ways these centers are utilized on the other hand. As mentioned earlier, during the summer school program, which we implemented for the first time in Türkiye, we effectively utilized the rich infrastructure of BİLSEM centers. Thus, we provided the opportunity for a wider group of students to benefit from the resources of BİLSEM centers.

Primarily targeting disadvantaged areas, we introduced the "Mobile Science Center," consisting of scientific experiment sets prepared in various disciplines such as mathematics, physics, biology, astronomy, and geography, installed inside a bus. The aim is to facilitate the understanding of the interaction between science and technology through activities. So far, approximately 650,000 people have visited the Mobile Science Center through the collaboration of provincial and district national education directorates, TÜBİTAK, and universities.

In conclusion, we will persist in our endeavors to construct an educational system that enables our exceptionally gifted children to actualize their potential and contribute to the well-being of both the individual and society at large.

Digitalization in Education

The field of education is witnessing a rapid expansion of digitalization on a daily basis. The advent of digitalization has made it possible to address the heterogeneous learning needs of students, particularly by offering them the opportunity to employ their own learning strategies. Moreover, new technologies are being developed to simulate practical education, particularly in VET, through digitalization. In this context, digitalization has the potential to offer multifaceted contributions to various aspects of education. The recent Covid-19 pandemic has also shed light on the importance of educational technologies and digitalization.

As the Ministry, we are strengthening the technological infrastructure of our schools and classrooms and conducting efforts towards the digitalization of education through the digital platforms we have established. We provide support for access to digital devices and digital literacy, especially for disadvantaged groups of students. Additionally, we conduct training programs for educators on educational technology and digitalization. In this regard, we are investing significant resources to ensure that every aspect of education is future-ready, resilient against potential challenges, and aligned with global standards.

In order to guarantee that our students receive a superior education and that their learning processes are facilitated by an advanced technological infrastructure, we persist in equipping our educational institutions with the latest technological resources. Within this scope, a total of 522,691 interactive whiteboards have been installed in 27,198 of our schools over the past one and a half years. By the end of 2023, there will be no classroom without an interactive whiteboard. Additionally, internal network infrastructure has been established in 19,040 schools, with approximately 1,171,000 data points installed to provide these schools with broadband internet access. For schools that do not have access to this infrastructure, we provide

internet connectivity using wired, satellite, and mobile access technologies. Therefore, we provide the necessary infrastructure support for students and teachers to effectively utilize digital educational technologies.

We are further improving the technological capabilities of our schools with three-dimensional printers, coding, design and computing tools, production-oriented kits, and single-board computers. Our next-generation interactive whiteboards are equipped with our open-source and nationalized PARDUS operating system. Our vocational training institutions have also acquired the skills and capacity to perform maintenance and repairs on smart boards, which have been widely distributed to all schools across Türkiye. In this regard, we are expanding the process of providing hardware in the field of education through VET. Therefore, our Ministry has not only been promoting digital technologies but also taking on the role of producing and maintaining these technologies.

In light of the heightened significance of digital examination applications in the wake of the ongoing pandemic, we have taken measures to extend the reach of these applications to a broader audience. In this context, we will increase the number of e-exam centers from 363 to 650 by the end of 2022, allowing up to 13,000 people to benefit from exams simultaneously. By 2023, we will ensure that there is at least one e-exam center in each district. These efforts not only facilitate access to assessment applications for our citizens but also enable our Ministry to conduct monitoring activities more effectively. As our e-exam center network expands in Türkiye, we can conduct many of our assessment projects at these centers and use them as a data source in our policy development processes.

In the context of our educational system, the establishment of digital platforms for both students and teachers represents a key priority. In accordance with this objective, four distinct digital platforms have been established over the past year. The initial platform is the "Teacher Informatics Network" (ÖBA), which was established to facilitate the professional and personal advancement of our teaching staff. The platform was actively utilized, particularly during the one-week intermissions, to enable educators to pursue their professional development training from their respective locations, obviating the necessity for their physical presence on campus. The platform is utilized for the dissemination of all materials and resources developed to support teachers' professional development effectively on this platform. With the addition of new materials, ÖBA has become extremely rich in terms of the opportunities it offers. Therefore, ÖBA has significant potential to increase teachers' participation in professional development, which has been limited by physical capacity for many years. As previously announced, we will continue this practice during the mid-term breaks of the 2022-2023 academic year.

As it is known, learning is a highly personal process, and students may prefer to learn using different methods and materials. In this context, we prioritize diversifying the learning opportunities we offer to our students and meeting their individual learning needs. In addition to supplementary resources, we have created a new digital platform called the "Student/Teacher Support System" (ÖDS) to support our students' individual learning processes, which students and teachers use together The platform is designed to identify areas where students may require further support and directs them to the most appropriate resources to address these gaps. Accordingly, the system generates recommendations tailored to the individual

student, addressing both learning gaps and the specific needs of each student. The developed platform contains nearly 100,000 instructional and problem-solving videos for lower-secondary and upper-secondary school levels. Additionally, the existing infrastructure is continuously enriched with new questions and educational materials prepared by Ministry experts, enhancing the system's ability to identify learning gaps and provide accurate recommendations. Topic explanation videos from all subjects are also being continuously uploaded to the system for students to access after solving multiple-choice questions.

In order to facilitate the learning of mathematics in an accessible manner, the Mathematics Campaign initiative has developed the 'Mathematics Education Digital Platform' over the past year and made it available to our students and teachers. This platform delivers mathematics education using various tools such as games, three-dimensional animations, and stories, in line with contemporary educational methods, contributing to the development of a positive attitude towards this field. In addition to providing these contributions, the platform serves as a digital workshop center, organizing workshops and training sessions for students, teachers, and parents at regular intervals.

Another important digital platform is the Public Education Centers Information Network (HEMBA). As I have consistently asserted, the education of our children is inextricably linked to the education and abilities of their parents. Accordingly, with a commitment to lifelong learning, our objective is to enhance the knowledge and skills of our adult population and parents. In recent times, we have further enhanced the capacity of our adult education courses, and we are making them accessible through HEMBA to facilitate parents' access to these courses. The platform we have developed significantly increases the flexibility of lifelong learning opportunities, thus having the

potential to increase participation. This step provides significant opportunities to expand adult education, which is an important development area for Türkiye. Additionally, we are taking HEMBA to an international level to make it available to our citizens abroad.

Moreover, we are pursuing the development of digital platforms to facilitate instruction in Turkish and other languages. In 2023, we will also make these digital platforms available to our students and teachers. Through these digital platforms, our objective is to facilitate the adaptation of our educational system to the evolving landscape of information and communication technologies, while also enabling students, teachers, and parents to develop a robust foundation in digital literacy skills.

Strengthening Vocational Education and Training System

One of the focal points of our goal to increase equal opportunities in education is the strengthening of VET. Historically, external influences, such as the implementation of coefficient regulation, have contributed to a decline in the prestige associated with VET high schools. This has had a significant impact not only on the education system but also on the labor market.

The coefficient regulation, which was in effect for over ten years (1999-2012), resulted in significant and multifaceted harm. Students who demonstrated academic achievement tended to disengage from VET , which was constrained by the coefficient regulation in terms of its access to higher education. In a way, the natural flow of students to different types of schools was manipulated by external intervention. As high performing students moved away from VET, VET high schools eventually became a type of school where academically low performing students clustered homogeneously. In this context, the diminished expectations of teachers for their students further exacerbated the disadvantages faced by VET high schools. Consequently, the quality of education continuously decreased, the capacity of graduates to meet the needs of the labor market declined, and significant harm was inflicted on economic development. VET, one of the most important areas for sustainable development, has largely lost its effectiveness due to deliberate intervention and has lost its capacity to support our country's development process. The rhetoric of "I can't find the employee I'm looking for" is the legacy of this period for the labor market.

On the other hand, as academically high performing students clustered homogeneously in science, social, or Anatolian high schools, and relatively low performing students in VET high schools, the achievement gaps between schools increasingly widened. The achievement gaps between schools, which existed even before the intervention, became much more chronic due

to the intervention. At a time when many egalitarian education systems were increasing student diversity within schools, our schools became even more segregated based on student achievement, and student diversity within schools decreased. Furthermore, opportunities for peer learning were severely limited as a consequence of this homogeneous clustering.

Following the introduction of the coefficient regulation, there was a notable increase in absenteeism and dropout rates among students in VET high schools. Additionally, there was a rise in disciplinary incidents and the emergence of various issues related to substance abuse. In essence, the coefficient regulation, beyond its intrinsic value as an educational policy, resulted in considerable costs for the labor market, the education system, and the younger generation.

Following the abolition of the coefficient regulation, considerable resources were allocated to the enhancement of VET . It was undoubtedly challenging to mitigate the impact of this intervention, which had been in place for years and had deepened problems in education, both in practice and in perception. In recent years, significant strides have been made in collaboration with industry representatives across all domains of VET , leading to notable enhancements in the training of human resources aligned with labor market needs. Industry representatives have assumed a more prominent role in all aspects of VET , reflecting a renewed commitment to partnership between the labor market and the education sector.

The multifaceted nature of the enhancements implemented has facilitated the attainment of outcomes within a relatively brief timeframe. As a result of the comprehensive steps taken, the occupancy rates in VET high schools have steadily increased, and academically high performing students have started to show

more interest in VET . Studies show that the occupancy rates of educational institutions that admit students through exams increased from 95% in 2021 to 99% in 2022. Considering the increased capacities of these institutions, it is evident that the flow of students towards VET has clearly increased. Additionally, the number of VET high schools preferred by high-achieving students has continued to rise. ASELSAN Vocational and Technical Anatolian High School (MTAL), ASELSAN Konya MTAL, and Teknopark Istanbul MTAL were among the institutions chosen by students in the top 1% in 2022. Istanbul Technical University MTAL and Yıldız Technical University MTAL were also among the preferences of high performing students. Demirören Media MTAL, which was opened in 2022, has joined these institutions as well. Istanbul Airport MTAL and Sabiha Gökçen MTAL are also among the schools that admit students from the top %iles. In short, academically high performing students who were previously deterred from VET by the coefficient regulation have started to return to VET. The fact that all the mentioned VET high schools were established in collaboration with Türkiye's leading organizations also underscores the importance of this cooperation.

The strengthening of the education-production-employment linkage in VET has been supported by enhancing our students' vocational skill acquisition, enabling them to experience real production environments and learn by doing/creating. In this context, the production activities in our schools' revolving fund enterprises have been supported. A notable increase has been observed in the revenues generated by the revolving funds of our educational institutions in comparison to previous years. Revolving fund revenues rose from around 200 million TL in 2018 to 1 billion 162 million TL in 2021. In 2021, the amount paid to students from revolving fund revenues based on their

contribution to production reached 51 million TL, while for teachers, it increased to 112 million TL. Our target for 2022 was to reach a production capacity of 1.5 billion TL. In the first eleven months of 2022, we reached a production capacity of 2 billion TL. Approximately 100 million TL of this revenue was paid to students, and 200 million TL was paid as a contribution for teachers. Our goal for 2023 is to reach a production capacity of 3 billion TL. The continuous increase in targets indicates a tangible result of a VET approach that emphasizes production and application in recent years.

The increase and spread of production within the revolving fund scope in VET have resulted in four different positive outcomes. Firstly, since learning by doing and producing is carried out within this scope, it has facilitated the acquisition and sustainability of skills that are essential in VET. Secondly, graduates' employability has been enhanced as they acquire the skills demanded by the labor market upon graduation. Thirdly, students receive a share of the income based on their contribution to production. This enables students to earn income while receiving education, empowering them to establish a fair relationship with labor and to make career plans for the future with hope. Certainly, student income generation has the potential to increase participation in education, especially for students from disadvantaged backgrounds. Considering that socioeconomically disadvantaged students are more prevalent in VET, this contribution is particularly significant for students. Fourthly, as a Ministry, our capacity to meet the needs of our schools has increased rapidly and at a lower cost by diversifying this production.

In the contemporary era, the economic advancement of nations is contingent upon not only the quantity of production but also the quality of the production. In other words, countries that

engage in innovative production and can claim rights over their production gain significant competitiveness in the global market. The production of innovative products and the ability to claim rights over them, especially in today's conditions, highlight the importance of intellectual property and industrial rights. To increase awareness among our students about intellectual property and industrial rights and to create a cultural climate that supports entrepreneurial spirits in this context, we have established comprehensive cooperation with the Turkish Patent and Trademark Office. In our VET schools, which have a strong capacity in this field, we have established 55 R&D centers. These R&D centers conduct research and product development activities in their respective fields, ensuring that students are nurtured within a culture of research and development. Furthermore, efforts are underway in these centers for the registration and commercialization of the products developed. We have disseminated the success achieved in R&D centers to all of our schools and institutions. We are delighted that while only an average of 3 product registrations were obtained annually in our Ministry just 6 years ago, in 2022, a total of 8,269 products were registered by the Turkish Patent and Trademark Office. Additionally, 171 products, including a coordinate system device for visually impaired individuals, mathematics education for individuals with special needs, and a UVC disinfectant robot, have been commercialized, contributing to the country's economy. Our goal for 2023 is to obtain registrations for 10,000 products and ensure that at least 5% of them are commercialized.

The momentum gained by Türkiye in VET in recent years is being closely monitored by many countries and international organizations. In order to disseminate our considerable expertise in the field of VET to countries within our cultural sphere of influence, we have established the first seven International

Vocational and Technical Anatolian High Schools, with the inaugural cohort of students commencing their studies in the 2022-2023 academic year.

One of the most important steps we have taken to modernize VET is the strengthening of vocational training centers, which fill a significant gap by providing education in real work environments in companies on alternate days, addressing the need for apprentices, journeymen, and master craftsmen in the labor market. With the improvements made in the Vocational Education Law No. 3308, which came into effect on December 25, 2021, the entire net amount of 30% of the minimum wage paid to students every month has been included in the scope of state support. Additionally, the amount paid to apprentices attending the 12th grade has been increased from 30% to 50%. On the other hand, by the end of 2021, the establishment of vocational training centers in all organized industrial zones (OIZs) and industrial sites has been completed.

Thus, while increasing the prevalence of vocational training centers, significant improvements have been made in the rights and benefits of students undergoing apprenticeship training. In accordance with these regulations, our objective was to facilitate the enrollment of one million young individuals in vocational training programs by 2022. Considering that before these regulations, the total number of apprentices and journeymen in all vocational training centers was 159,000, it is evident that this target was quite ambitious. Due to the attractiveness of the developed model for both employers and young people, the target was exceeded in 2022, with the number of apprentices and journeymen reaching 1.2 million. The number of women in vocational training centers has increased from approximately 27,000 just 10 months ago to 350,000 today. Therefore, an important support mechanism has been provided for women to participate

in the workforce. Additionally, the fact that approximately 81% of the 1.2 million apprentices and journeymen are over 18 years old clearly demonstrates how significant this step is in reducing youth unemployment in our country. With these efforts, the rhetoric of "I can't find the employee I'm looking for" has lost its meaning. In addition to achieving a significant increase in participation through our improvements, the fact that we plan all our processes with representatives of the labor market is also a crucial factor in rendering this rhetoric meaningless. In 2023, we will continue to support VET with new projects.

At this point, the share of VET in secondary education has increased from 33% to 46%. Additionally, the share of vocational training centers in VET secondary education has increased from 5.6% to 47%. This growth is particularly noteworthy insofar as it suggests that apprenticeship training, which has gained prominence within the EU and OECD regions, has now become a more prominent option within the context of secondary VET system.

The successes we have achieved in VET in a short period have attracted the attention of the international education community. To disseminate these achievements to other countries, a VET summit was organized in collaboration with the OECD and the Ministry of National Education (MEB). The summit, scheduled for 1 December 2022, was held in Istanbul. On the day of the summit, a significant number of participants were in attendance, and the Turkish experience of transforming VET was shared with OECD countries. The summit provided a valuable opportunity for knowledge exchange, and the outcomes will be disseminated to the public through a report.

In order to maintain the progress made in VET, two significant regulations are scheduled for implementation in 2023. One

of these is related to the scope and duration of education that VET graduates will receive if they continue their education at vocational colleges (MYOs). When graduates of VET programs enroll in a vocational college program that is a continuation of their field of study, they are subject to the same education and duration as their peers who graduated from other types of high schools and enrolled in the same department. In other words, the prior learning of secondary VET students is not recognized in terms of the content or duration of education at the higher education level. However, in such cases, a VET graduate could be enabled to graduate in a shorter time, such as one year, or, if necessary, through a different education program lasting three semesters. Thus, by evaluating previous learning, VET high schools can become much more attractive. While micro- and macro-credentials and the recognition of prior learning are significant areas for improvement in global policies, sufficient progress has not yet been achieved in our country. Establishing bridges that recognize prior skills between secondary VET system and higher education has the potential to increase the attractiveness of VET as a whole. Work with the Higher Education Council (YÖK) continues to find solutions in this regard.

Another regulation aims to improve the wages of VET high school graduates when they are employed in the field they received training. It is well known that VET is quite expensive. Therefore, there is a need for regulations that encourage graduates to work in the field they were trained in. Work is ongoing with the Ministry of Labor and Social Security to make a legal arrangement in this regard.

Supporting the Professional and Personal Development of Teachers

As an educational institution, our primary objective is to provide comprehensive assistance to educators in both their professional and personal growth. The decision to prioritize the professional development of teachers as a priority policy area is highly appropriate because all the evidence we have about education shows strong links between teacher characteristics and educational outcomes. Enhancing the quality of education is necessary to increase our country's competitiveness, as well as societal and individual welfare. The provision of multifaceted support for the professional and personal development of teachers is also a crucial factor in ensuring that our students have access to a higher-quality education. We know that an education system and a society are as strong as their teachers. When you consider that a school is a small-scale example of society, the role of the teacher is crucial for the improvement of schools to be reflected in society. Moreover, considering the issues discussed in the previous section, supporting the professional and personal development of teachers is also critical in strengthening equal opportunities in education.

Therefore, the annual professional development training program has been subjected to a comprehensive restructuring. As a ministry, we have shifted from centralized planning to a school-based teacher training approach, where teachers at each school can decide on the training they need. This step has provided our schools with a greater range of options and has facilitated teachers' participation in training programs. In the new approach, we also implemented the teacher-administrator mobility program and Professional Development Communities models, which facilitate the observation of best practices on-site. This allows our teachers and school administrators to apply the effective practices they observe in different schools to their own. Additionally, as previously mentioned, we developed and

launched the Teacher Informatics Network (ÖBA) for the first time to utilize digital platforms in these trainings.

The multifaceted steps that have been taken have yielded results in a relatively short time frame. The mean number of training hours per teacher was 44 in 2020, increasing to 94 in 2021. In 2022, the objective was to achieve 120 hours of professional development training per teacher, but the actual result was 250 hours. Consequently, the highest average training hours per teacher in the last 30-40 years were attained. These improvements would not have been possible without making the professional development model more flexible and accessible. Therefore, the significant increase in participation observed over a single year is a highly encouraging outcome.

The positive outcomes of the new approach were not limited to the average training hours per teacher. There was also a significant increase in the participation rate of teachers in professional development activities, with almost all teachers in our education system participating in at least one of these activities. Consequently, we will exceed the OECD averages in teacher participation in professional development activities, where we were previously somewhat below average in the most recent OECD studies. These improvements clearly demonstrate how much the new approach has increased the inclusiveness of teacher training.

Additionally, we established the 'Administrator Academy' in Istanbul to provide our school administrators with training to enhance their leadership skills. It is well-known that there are significant relationships between the characteristics and leadership behaviors of school administrators and the school climate, as mentioned in previous sections. Therefore, activities aimed at developing educational administrators are very

important. So far, approximately 4,000 school administrators from all corners of our country have come to Istanbul to benefit from these three-day training programs. By the end of 2023, we aim to have all our school administrators benefit from these trainings.

A significant development in this regard was the enactment of the Teaching Profession Law. The enactment of the Teaching Profession Law on February 14, 2022, has resulted in the formal recognition of teaching as a distinct and specialized profession. Indeed, the necessity for a specialized legal framework for educators has been articulated for six decades. Most recently, this proposition was unanimously endorsed at the 20th National Education Council, which included representatives from all sectors of our society. Consequently, the enactment of this professional law marks the fulfillment of a long-awaited demand.

In this context, the legislation has established a legal foundation for the initial training, entry into the teaching profession, and advancement within the career trajectory of educators. After entering the profession, we have established that teachers can earn the titles of 'expert teacher' after the first 10 years and 'head teacher' after the second 10 years, provided they complete certain tasks, including professional development activities, and pass the relevant exams. It is worth noting that many countries have similar career progression systems, where teachers can advance based on seniority and participation in training. These systems are not designed to establish a pecking order among teachers but rather to motivate their involvement in professional development and to recognize their contributions over time.

The quota limit for the titles of expert teacher and head teacher has been eliminated. Teachers who advance in these optional career steps we defined for them are granted new personal rights,

such as salary increases, in line with their newly earned titles. The legislation resulted in a significant increase in the number of teachers seeking promotion to expert and head teacher positions. Specifically, 95% of those who met the requisite examination standards applied for these roles, and 99% of these applicants completed the requisite training. Additionally, 98% of the teachers who completed their training applied for the exams, and 99% of those who applied for the exams participated in them. The exams were successfully completed, and 516,974 teachers earned the title of expert teacher, while 66,679 expert teachers earned the title of head teacher.

The implementation of this legislation has resulted in a notable surge in the number of educators pursuing advanced academic qualifications, including master's and doctoral degrees. Currently, approximately 12% of our teachers have completed master's degrees, and 0.29% have completed doctoral degrees. These %ages are significantly below the OECD averages; indeed, in some countries, completing a master's degree is a requirement for teaching. After the legal regulation, it is expected that there will be a continuous increase in these %ages in the coming years. The career system established provides teachers with the motivation to not only teach but also to engage in continuous professional development. Furthermore, a system has been established that recognizes and differentiates their personal rights based on their professional achievements.

Environment, Climate Change, and Education

The objective of the Ministry of National Education Climate Change Action Plan is to enhance awareness about global warming and climate change and to implement preventive measures. This plan aims to contribute to the upbringing of students as individuals who are aware of and fulfill their responsibilities regarding climate change. We know that education is the only force that will empower us in the face of these changes and transformations in the world, making us resilient against adversities. Through education, our youth will develop sensitivity towards the world they live in, the environment, nature, and climate, which will enable them to build a better world.

We also know that the most effective way of learning is through experiential learning, where students can directly experience and closely observe the subject matter. With this perspective in mind, instead of merely providing theoretical knowledge about the topic to students, we have enriched the educational process by making our schools environmentally friendly and involving students in this transformation process. In this context, we will make all schools in our education system eco-friendly. With this goal in mind, we have launched the 'Eco-Friendly 1,000 Schools Project' to instill environmental awareness, foster sustainability, and demonstrate and implement related practices to students at the primary education level.

In order to facilitate the implementation of sustainable practices, the project team conducted training sessions on a range of environmental topics, including sustainability, energy efficiency, water conservation, waste management, and environmental awareness. We ensured that at least 1,000 schools from every district in our country received training and equipment on renewable energy, electricity, water, and fuel conservation, as well as increasing students' awareness of recycling and zero waste practices. We continue to install rooftop solar energy

systems (GES) in schools with the highest energy consumption to promote energy efficiency. By the year 2023, a total of 60 MW rooftop GES will be installed in the top 1,000 energy-consuming schools to promote energy conservation. These initiatives are particularly important for our students to gain practical environmental awareness beyond theoretical knowledge.

Furthermore, we have updated the environmental education and climate change curriculum as an elective course for lower-secondary school students in grades 6, 7, or 8, with 2 class hours per week. Within the scope of this course, projects will be designed to create social awareness aimed at reducing the impacts of climate change in Türkiye. Concepts such as environmental literacy, water literacy, agricultural literacy, food literacy, and ecological literacy will be covered, and the course will include projects related to the zero waste initiative and waste management. We are taking significant steps to raise awareness among our students about potential global issues related to water and energy sources, to encourage conscious consumption, and to encourage their personal contributions to the process.

Furthermore, to foster environmental consciousness and disseminate knowledge about recycling, we have established recycling libraries. In this initiative, materials such as panels, boards, iron, paper, glass, boxes, tires, computer parts, musical instruments, cabinets, etc., which were previously unused, were transformed by teachers and students into usable items such as desks, bookshelf shelves, chairs, tables, accessories, and lighting products suitable for use in libraries. The installation of 1,325 recycling libraries equipped with these products has been completed. Through this initiative, children have seen that waste materials can be reused in various fields. With all these efforts, we aim to leave a more livable world for our children and young people.

Lifelong Learning

The most valuable asset of countries is their human capital, and the most effective and widespread factor that can be used to enhance this human capital is education. As the Ministry of National Education, we are not only increasing access to education for the population of school age. At the same time, by organizing the education, courses, and activities demanded by all our citizens beyond school age, we encourage them to become 'lifelong learners'.

In fact, learning is a lifelong process that begins at birth and continues throughout one's lifetime. This concept of lifelong learning acknowledges the dynamic nature of the learning journey and its role in preparing individuals for the ever-changing and evolving conditions of life. It also equips them with the essential life skills that contribute to both individual and societal well-being.

There are also other reasons why lifelong learning is important for Türkiye compared to other countries. As of 2021, the proportion of the youth population to the total population in Türkiye is 15.3%, which is higher than many countries in the EU region. Therefore, while our country continues to benefit from a relatively young population, the average age of society is rising significantly, indicating an aging population. Additionally, studies conducted by international organizations have identified a notable gap in the development of skills among the adult population in Türkiye, particularly in terms of their ability to engage in educational activities. This highlights the urgent need for enhanced adult education and lifelong learning opportunities in our country.

Over the past two decades, notable advancements have been made in this field. Initiatives have been implemented to enhance adult learning opportunities through a range of strategies, including literacy campaigns, VET programs, social and cultural activities,

and family education. These endeavors have contributed to the advancement of lifelong learning processes for adults.

In Türkiye, we have a total of 1,027 adult education institutions, including 998 official public education centers and 29 adult education centers, located in all provinces and districts. These institutions provide educational support to approximately 4-5 million citizens annually, intending to reach a total of 12 million citizens in 2022, targeting 1 million each month. We offer courses covering almost every area of life, from the food sector to textiles, from agriculture to information and communication technologies. The curricula have been revised with a particular focus on enhancing employability. We have conducted a more thorough analysis of the educational requirements of our citizens. We have listened more closely to the education demands of our citizens. Particularly, by organizing adult education center courses in approximately 2,400 village life centers that we have established in villages, we have ensured that citizens in villages also benefit from this service. In this context, we exceeded our target in 2022, providing 13,386,915 citizens with these opportunities. Vocational training courses, especially those targeted at women, contribute significantly to both the improvement of women's vocational skills and their transition to employment. Furthermore, many women entrepreneurs have entered the business world after completing these courses and establishing their own businesses.

In addition, we are creating supportive mechanisms aimed at facilitating the lives of and integrating into society groups that can be identified as disadvantaged and sensitive (such as individuals in prisons, those under temporary protection, individuals in special education, and individuals undergoing long-term treatment in hospitals) by opening special courses tailored to their needs. Through these efforts, we have found opportunities to contribute to the social integration of vulnerable

groups through lifelong learning. In this context, a total of 171,559 citizens have benefited from the 21,440 courses we have opened.

We aim to reach 15 million citizens in our public education centers in 2023, which would be the highest number of participants we have ever reached. Achieving this target will assist a significant portion of adults in Türkiye in improving their skills.

As part of this, the "Family School Project" was initiated in August, with the specific aim of engaging with our families.. It is well known that the involvement and education level of families are closely associated with many educational outcomes for their children. Therefore, efforts to encourage family involvement in education have the potential to contribute to their children's educational performance. With this perspective, we have begun supporting our families with 12 different courses covering family values, intra-family communication skills, conflict and stress management, conscious and safe use of technology, combating addiction, social-emotional skill development, peer relationships, moral development, healthy nutrition and physical activities, first aid, traffic rules, and environmental awareness. While the objective was to reach one million families by the end of 2022, the initiative exceeded this goal, reaching 1.11 million families. In 2023, the objective is to reach 2.5 million families.

In 2023, we will implement three new initiatives in our public education centers. Firstly, we will update the content of courses with over 3,500 to support the employment of attendees and create new courses. Secondly, we will transfer all updated and renewed courses to a digital platform, enabling our citizens to benefit from these courses through distance education. Thirdly, with the development of a digital platform, we will ensure that our citizens, especially those in our cultural sphere, such as the Balkans, as well as citizens worldwide, can benefit from these courses.

The 'Family School' Initiative

As mentioned earlier, the Ministry of National Education not only provides education services to the school-age population but also offers education services to adults aged 18 and above through public education centers and adult education institutes. Moreover, the Ministry of National Education provides continued support for adult learners through distance learning, as exemplified by its open lower-secondary school and open upper-secondary school programs. For example, in November 2022, out of 142,326 students enrolled in open lower-secondary school, 134,552 were adults aged 18 and above. Similarly, out of 1,112,765 open upper-secondary school students, 880,613 were adults aged 18 and above. In other words, there are significant instruments available to continuously enhance the quality of our most valuable asset, human capital, in our country. The crucial aspect is to improve and expand the quality of these services.

The number of public education centers is approaching 1,000, with a high degree of accessibility in nearly every district. During the summer of 2022, the initial phase of a project to transform idle village school buildings into "village life centers" commenced. The objective was not merely to establish preschools and primary schools in rural communities but also to furnish the residents with educational assistance through a range of instructional programs. To achieve this objective, public education centers were established in all of the approximately 2,400 village life centers that were opened within three months. Consequently, the number of public education centers was increased to 3,200. The opportunity was thus presented to provide a variety of courses directly to the villagers, encompassing subjects as diverse as agriculture, animal husbandry, personal development, and vocational training. This approach facilitated the integration of both school-aged and non-school-aged individuals within the same educational setting. In 2022, approximately 170,000 citizens benefited from these courses in our villages.

The Ministry of National Education (MEB) was providing educational support services to citizens at a rate of 4-5 million annually. In 2022, we raised our target and intensified our efforts to provide educational support to one million citizens per month. This meant that by the end of 2022, we aimed to reach 12 million citizens. By surpassing our target in 2022, we reached 13,386,915 citizens. The steps we took led the way to a large-scale campaign that yielded significant results for adult education.

In mid-2022, we initiated the development of a comprehensive educational program designed to meet the needs of families. The objective was to develop an educational package that would provide multifaceted assistance to the family, which serves as the foundation of society. The education package was centered around our values and included a variety of course modules such as intra-family communication, moral development, social-emotional skill development, healthy nutrition, combating addiction, conflict and stress management, conscious and safe use of technology, first aid, traffic awareness, and environmental consciousness. On August 18, 2022, the Family School Project was launched simultaneously in all 81 provinces under the patronage of Mrs. Emine Erdoğan. The project's objective was to reach 1 million families in 2022, a goal that was exceeded with the enrollment of 1,110,000 families in a relatively short period of time.

The objective is to provide this service to 2.5 million families by 2023. Indeed, in the contemporary era, the institution of the family is confronted with a multitude of challenges, particularly in the digital age that pervades nearly every aspect of our lives, especially those of our youth. It is evident that the necessity to educate, inform, and fortify familial resilience against the myriad challenges of the modern era has reached an unprecedented level. In light of this, we are committed to continuously updating

the content of our school project to reinforce the family structure against the global attacks on the family. We recognize that a robust family unit is a cornerstone of a strong and stable society.

Three Languages: Turkish, Mathematics, and Foreign Language

For an extended period, our country has been confronted with challenges in the domains of mathematics and foreign language education. The results of evaluations and monitoring of examination outcomes demonstrate that our students encounter challenges in these domains. The categorization of students during the transition to higher education, such as numerical, verbal, and equal weight, has the effect of assigning responsibility for mathematics education to certain groups of students while excluding others. It is imperative to underscore that mathematics is not merely an abstract system of numbers and intricate problems. Instead, it is a unique and indispensable language that all students must master and utilize. Mathematics serves as a pivotal instrument in developing logical connections with the world around us, encompassing aspects such as reasoning, comprehension, problem-solving, and the assessment of events and data.

On the other hand, foreign language teaching also faces a similar negative perception. Beyond the need for improvements in methodological approaches to foreign language teaching, this issue is directly related to the native language, Turkish. When we fail to elevate Turkish language skills to the desired level, these deficiencies directly impact foreign language education. At this point, we have initiated a comprehensive campaign for all three languages (Turkish, mathematics, and foreign languages).

In our education system, while only reading comprehension was measured in Turkish education, there was no assessment system for writing, speaking, and listening skills. Assessment processes in this regard were limited to achievement levels in classroom evaluations and lacked a comprehensive evaluation framework. To address this gap, for the first time, we developed a computer-based exam application to assess Turkish language proficiency in four basic skills: reading, writing, listening, and

speaking. Outputs from the application, prepared according to the standards of international exam practices, have been utilized to enhance the effectiveness of Turkish language education. To facilitate this application, we established specially equipped e-exam centers in all 81 provinces. In 2023, we will also complete the training of our teachers in this context. We are now developing new programs to strengthen all four skills in the Turkish language field.

In his work, Heidegger posits that "language is the house of being." In this context, "home" is used to denote the culture, geography, and civilization to which individuals belong. It can be reasonably deduced, therefore, that language and culture are directly related. While language exerts an influence on culture, it also draws sustenance from it. The transmission of culture from one generation to the next is facilitated by language. It serves as a conduit between the past and the future. This is why we place a particular emphasis on our students' language learning, especially in light of the impact of globalization and new technologies. In this way, we seek to mitigate the potentially destructive effects of the spread of "popular culture." The cultivation of our students' reading cultures and the expansion of their vocabularies are of critical importance in the widespread use of language in all areas.

Another notable initiative undertaken for this objective was the implementation of a project in 2021 that guaranteed the provision of a library in every educational institution. In a relatively short time, 16,361 schools that previously lacked libraries were provided with them, thus eliminating the absence of libraries in our country by the end of 2021. In 2022, the objective was to enhance the content of all libraries. In particular, by prioritizing the works of our literary and cultural figures, the number of books increased from 28 million at the beginning of 2022 to 110

million by the end of the year. Consequently, students at all educational levels can readily access and read the books they desire in their school libraries. Furthermore, we promote the implementation of a multitude of cultural and artistic activities monthly within our educational institutions, thereby reinforcing their connections and enhancing their cultural, historical, and geographical awareness. These initiatives will not only fortify our students' long-term attachment to the Turkish language but also foster a more conducive school environment.

An approach to mathematics education based on game-based learning has been initiated. At the outset of the educational process, our methodology prioritizes the exploration of concrete relationships. As students progress through the educational levels, our approach gradually facilitates their transition towards more abstract conceptualization, in alignment with the objectives of our mathematics campaign. In order to achieve this objective, we have initiated the production of new teaching materials and the creation of new content at both the primary- and secondary education levels. To this end, we have collaborated with TÜBİTAK (The Scientific and Technological Research Council of Türkiye) to develop a new digital platform for mathematics. This platform provides a range of content for students and teachers on diverse mathematical themes, including games, intriguing mathematical concepts, the role of mathematics in nature and daily life, the historical development of mathematics, three-dimensional materials, and the exploration of formulas.

On the other hand, to support our teachers in the new approach to mathematics education, we have established numerous professional development communities such as game-based mathematics education in early childhood, differentiation of teaching in primary school for mathematics and social studies sub-themes, inquiry-based mathematics teaching design, and

collaborative teaching approach. Additionally, we have started to promote "Mathematics in My Profession" seminars in our schools to showcase how mathematics is used in different professions and fields of expertise.

Within the comprehensive collaboration we established with TRT (Turkish Radio and Television Corporation) for foreign language education, we started to actively use the content produced for current topics in foreign language teaching. We began to place more emphasis on speaking skills in foreign language instruction.

To guarantee the longevity of these procedures and to assess the advancement of the novel methodology, we devised the inaugural summer school program. In the summer of 2022, we conducted a series of free summer schools on four distinct themes: science, art, mathematics, and foreign language. The student response to the summer schools was overwhelmingly positive, with approximately one million students benefiting from the program. Indeed, we received numerous requests to extend the duration of the summer courses, as the duration of the summer schools was perceived as insufficient. We will implement this program for the first time during the two-week mid-term break in 2023. Thus, while supporting the enjoyable teaching of the three languages with new approaches on one hand, we will continue to support the development of our students during these holiday periods on the other hand.

The Conflict between Individualistic and Structural Approaches in the Transition from School to Work

The transition from education to employment constitutes one of the most significant contemporary issues in all countries. Nations endeavor to elevate the educational attainment of their citizens, strengthen VET, and particularly reduce youth unemployment rates, crafting policies to achieve these objectives (Brunila and Lundahl, 2020a; 2020b). Educational systems strive to mitigate early dropout rates while facilitating young people's smooth transition to further education (such as higher education) or the labor market. Students progress within the education system according to their career goals, either striving to continue their education after compulsory schooling or seeking employment. In this context, data on the NEET (Not in Employment, Education, or Training) population not only provides information about the education system but also sheds light on the labor market and economy of a country. In order to reduce the NEET rate, countries implement a variety of initiatives to facilitate the transition from education to employment. These initiatives often entail significant investments aimed at reintegrating young people into education and employment (Brunila and Lundahl, 2020; Commission of the European Communities, 2005; Lundahl and Olofsson, 2014).

Discussions regarding the transition from education to employment primarily revolve around how successful education systems are in preparing the human resources needed for modern society (Darling-Hammond, 2010). In essence, the crux of the problem lies at the nexus of two domains: the domain of education and the domain of the labor market. Consequently, devising solutions to this challenge necessitates a holistic approach that addresses the issues in both domains in a connected manner.

When we closely examine the discussions about the transition from education to employment, it's often observed that the problems in the labor market space are overlooked, and the

focus is predominantly on the education space, with solutions sought primarily there (Lundahl and Brunila, 2020). By solely concentrating on the education space, there's a risk of oversimplifying multifaceted issues into individual problems, potentially disregarding all factors, especially those outside of the school environment. Consequently, this approach limits the possibility of developing comprehensive solutions to the problem. In reality, the issues are highly comprehensive, complex, and multidimensional, encompassing both spaces and transitional mechanisms, and they are intricately linked to numerous factors within and beyond the realm of education.

In this study, the transition from education to employment is examined within the context of Scandinavian countries, focusing on the evaluation of the book "Youth on the Move," edited by Brunila and Lundhal (2020a) and published by the University of Helsinki. The assessment particularly delves into the issues addressed in this context through individualistic and structuralist approaches. Additionally, the topics discussed in the book are enriched by linking them with debates on secondary VET system in Türkiye.

The book consists of eight main sections. Each section examines the nexus between education and the labor market, elucidating the interrelations and issues that arise within the context of each country. The book provides an opportunity to see different dimensions and backgrounds of both progress in education and issues related to the transition from school to the labor market. This is achieved through the integration of field research conducted in diverse countries and the incorporation of the perspectives of young people.

In the first chapter prepared by Rönnlund (2020), the transition from school to work problems of academically high performing

middle-class students in Sweden is examined. Notably, this study focuses on academically high performing students as a disadvantaged group, a perspective that diverges from the predominant approach in transition studies from school to work, which tends to prioritize the experiences of those from lower socioeconomic backgrounds. In Sweden, especially with neoliberal and economy-market-based adjustments in education, it is assumed that students can freely navigate the education market as individuals who can plan their education to be advantageous in the job market and strengthen their entrepreneurship, thus optimizing their chances in both education and the job market.

Therefore, in Sweden, since all responsibility for the transition from education to the job market is loaded onto the individual, the problem is seen as being viewed from an individual rather than a structural perspective. In this positioning, individuals prioritize themselves, leading participatory approaches to focus on individual issues, thus strengthening a culture of self-interest (Ball, 2006; Rönnlund, 2020). Ultimately, the individual efforts of those from disadvantaged backgrounds are not sufficient for a good education and a successful career in the job market. On the other hand, young people from advantaged socio-economic backgrounds encounter fewer obstacles in fulfilling the student-citizen role expected by neoliberal and economic market conditions, as they have access to strong social, economic, and cultural resources. As a result, schooling becomes a middle-class project (Rönnlund, 2020).

In the second chapter prepared by Jarvinen (2020), the relationship between young people's social background and their careers in the job market is examined using NEET data for two different age groups in the context of Finland. In Finland, which has an inclusive school system, students continue compulsory

education until the age of 15, after which they either transition to further education or exit education. For students continuing their education, there are two options at the upper-secondary level: academic or VET. Annually, about 50% of students continue their education in academic high schools, while approximately 40% continue in VET high schools (Jarvinen, 2020). When investigating the relationship between NEET groups' careers in the job market and their social backgrounds in the mid-1980s and 1990s, Jarvinen evaluates the positive educational and job market outcomes of the target groups, using family education as the most explanatory factor and family education level as an indicator of social background. Despite the varying degrees of influence of social background between the two different young groups, with the level of influence being lower in the 1990s group, it is observed that in both groups, as the education levels of families increase, the probability of young people being in the 'stable' career group increases, while a significant portion of young people in the 'stagnant' career group come from families with low levels of education. The socioeconomic characteristics of young people being decisive in their educational performance and career paths form a global problem area and are frequently studied in Türkiye as well (Kuzgun, 2000, 2004; Suna, Tanberkan, & Özer, 2020; Suna et al., 2020). The available evidence suggests that socioeconomic characteristics exert a significant influence on students' placement in different types of schools, resulting in notable disparities across school types (Özer, 2020d; Suna, Tanberkan, & Özer, 2020; Suna et al., 2020a, 2020b).

The robust correlation between socioeconomic status and academic achievement results in high-achieving students from affluent backgrounds receiving education together, and the academic performance of this group increases due to rising competition. Consequently, this situation leads to the isolation

of students from low socioeconomic backgrounds in education, causing them to experience additional disadvantages. This exacerbates the challenges faced by young people from already disadvantaged backgrounds due to the structural characteristics of the system, influencing their education and career choices significantly. As a result, not everyone has equal opportunities for entering the job market and establishing a stable career, as factors like family education level continue to impact not only academic achievement but also careers in the job market. Despite the relatively low achievement gap among schools and the significant impact of inclusive education in reducing this gap in Finland, the persistence of this issue indicates that the problem is more structural and systemic rather than individual.

In the third chapter prepared by Arnardottir (2020), the NEET profile in Iceland is examined. While there are various reasons behind people being NEET during their youth, as they age, illness and disability become prominent factors in this group. In Iceland, approximately 77% of the NEET group previously had a job, indicating that the problem stems not from the desire or abilities of individuals in this group to seek employment but rather from the lack of sufficient job positions in the job market. Consequently, individuals end up in the NEET group because there are not enough job opportunities available in the job market, despite their desire and qualifications to work. Additionally, it is observed that the jobs previously held by this group predominantly did not offer rich career opportunities. Consequently, this chapter of the book emphasizes that being NEET in Iceland is more a result of difficulties in the job market than a lack of skills among young people, highlighting the lack of job opportunities as the main factor.

In the fourth chapter prepared by Lindblad and Lundahl (2020), the educational careers and transitions from school to work

of young people from immigrant backgrounds in Sweden are comprehensively evaluated. It is well documented that individuals born outside Sweden face significant challenges in the job market, with this group exhibiting the highest unemployment rate among OECD countries (OECD, 2018). The study demonstrates that young people in this demographic tend to pursue educational pathways that lead to secondary job positions, given the limitations in their families' social, economic, and cultural capital, language proficiency, and educational attainment. The study indicates that communication between young people in this group and their families and schools is extremely weak. Moreover, the study indicates that the concept of "otherness" exerts a significant influence on both educational and labor market outcomes. Additionally, the findings suggest that as the duration of upper-secondary education increases, so do the post-school career opportunities and the rate of transition to the labor market. For example, receiving at least two years of upper-secondary education significantly reduces the risk of young people in this group being NEET. Therefore, the importance of developing support mechanisms to keep young people engaged in education is emphasized.

The fifth chapter, prepared by Masoud et al. (2020), extensively discusses the integration of immigrants in Finland in the context of transitioning from school to work. Overall, the chapter highlights that in Finland, immigrants' prior learning and skills are not recognized, and integration education forces immigrants to pursue new careers. It also emphasizes that long-term integration education focuses on more than just gaining skills for a profession; it also emphasizes adaptation to the Finnish lifestyle and cultural codes, which can cause trauma for immigrants. In conclusion, immigrants are consistently compelled to enhance their skills on an ongoing basis to meet the ever-evolving

demands of the job market. Such individuals are even expected to continuously transform themselves into "employable objects," attributing their lack of employment to personal deficiencies, despite the absence of any actual employment. As highlighted in the study, immigrants are often considered a burden to the country's welfare system. Therefore, integration education can be seen as a process of creating obedience and pre-acceptance to society, where the proposed changes, including irrational vocational changes required for societal acceptance, are accepted (Keskinen, 2016). In this context, examples are provided of immigrants who have been practicing a profession in their own country for years but are not allowed to work in that field or related fields in their host countries, leading them to make plans to migrate to other countries. Considering that Finland is considered one of the most discriminatory countries among the 28 EU member states according to the Second European Union Minorities and Discrimination Survey (EUAFR, 2017), the findings of this section are not surprising.

In the sixth chapter prepared by Hodgson and Spours (2020), the transition problems of young people in the upper-secondary system in England are addressed based on different periods of educational policies. The chapter's primary focus is on the intermediate group situated between the vulnerable and high-achieving students. The study reveals that since 2010, government policies have posed a significant challenge for students in this middle group, with these students facing a growing divide between narrowly defined and selective academic education and the limited availability of high-quality apprenticeships. Ultimately, considering the stagnant youth job market, it is emphasized that this group faces the risk of becoming the new "precariat" within the education system. The Anglo-Saxon model is characterized by minimal state regulation and a culture

of employer voluntarism, resulting in a flexible labor market. Hodgson and Spours (2020) argue that although transition problems may initially appear to be related to students, their families, or society at large, the fundamental issue is actually associated with national education policy and the narrowing job market for young people.

In the seventh chapter prepared by Brunila et al. (2020), the collaboration between entrepreneurship and therapeutic discourses in managing youth transitions in Finland is examined, particularly about health and mental disorders that slow down transitions to education and employment. Here, youth unemployment is also approached as an individual problem, associated with a lack of entrepreneurial skills, attitude, and situation, leading to attempts to generate therapeutic solutions to economic problems.

In the eighth chapter prepared by Irisdotter Aldenmyr and Olson (2020), the significance of educators providing therapeutic educational assistance to young individuals in the process of transitioning from academic to societal contexts is elucidated. Considering that the psychological well-being and resilience of young people, beyond their knowledge, skills, and competencies, also affect their transition from school to society, three different discourses are examined in detail: the psychological risk discourse, the role model discourse, and the ethical discourse. All three discourses are considered within the framework of life competence education in Sweden.

The cost of not looking at problems structurally

In the book edited by Brunila and Lundahl (2020a), the most notable emphasis is on the tendency to explain the transition problems from school to work in the countries considered primarily by the personal characteristics of young people This

approach holds young people responsible for all failures, which is an unfair burden. This approach effectively shifts the burden of responsibility for issues stemming from institutional and structural factors to individuals. In other words, regardless of the misfortunes they encounter, everything is assumed to be entirely the fault of the individual themselves (Diedrich et al., 2013; Kurki et al., 2018; Masoud et al., 2020). Explaining the problems with personal characteristics also requires the solution to be developed at the individual level (Brunila and Lundahl, 2020b). For example, in the same book, Arnardottir (2020) demonstrates that children of parents who were not born in Iceland have a higher %age of NEET. Therefore, in the context of the labor market, discrimination or selectivity beyond the individual's responsibility can be observed. A similar individualistic approach trend is also seen in Sweden, where despite numerous factors both within and outside the school environment contributing to academic failure (Lundahl et al., 2017), local decision-makers tend to attribute the main reason behind upper-secondary dropouts solely to the lack of motivation among young people (Lundahl and Olofsson, 2014). In this case, especially as upper-secondary students are expected to be independent and self-disciplined, institutional guidance and support services for troubled students are decreasing (Lindblad and Lundahl, 2020). This situation also precludes the possibility of offering young people the opportunity for a second chance.

Similarly, London serves as a typical example where the transition to the post-higher education job market is delayed the most. Hodgson and Spours (2020) indicate that this issue is more related to London's employment market structure, which is dominated by the finance and service sectors, rather than the quality of education. Therefore, in London, both the highest graduation rate and the highest unemployment rate for graduates

are observed. In Sweden, it is also observed that most entry-level jobs have now disappeared (Lindblad and Lundahl, 2020). Consequently, young people with low levels of education face difficulties in their initial transition to the job market and may become part of the potential NEET group, despite not having a qualification problem related to their education. In particular, a considerable number of the roles that previously provided an entry point for young people into the job market have been eliminated as a consequence of industrial restructuring or the relocation of businesses to countries where labour costs are lower (Brunila and Lundahl, 2020b). As a result, job markets create a more competitive environment for young people.

The theory of human capital (Becker, 1962; 1964) suggests that individuals will generally have a competitive advantage in the labor market as their human knowledge, skills, and competencies increase. However, this theory does not address whether everyone has equal opportunities to acquire these skills or whether the labor market treats everyone equally, even if they have equal skills. While the theory's general claim may hold true, the conditions in both education and the labor market do not guarantee equal treatment for everyone. For example, in Finland, employers prefer white Finns without any vocational training or those who have been unemployed for a long time over individuals from immigrant backgrounds (Masoud et al., 2020). Therefore, the lack of employment opportunities for immigrants in Finland stems not from individual skill deficiencies but rather from employment and integration policies in Finland. Consequently, this issue constitutes a structural problem rather than an individual one (Williams, 2009).

In contrast, a structural approach recognizes the influence of socio-economic background on the lives of young individuals, associating disadvantage with a lack of social opportunities

(Jarvinen, 2020). The structural approach allows for the recognition that the problem is a structural one, thus enabling the provision of compensatory opportunities for these young people and facilitating the realization of this compensation through education policies. On the other hand, the structural approach also acknowledges that an individual's failure may not necessarily stem from their own characteristics. Therefore, by providing compensatory opportunities or second chances in this context, it aims to address the shortcomings of the system, thereby preventing individuals from feeling worthless.

Conversely, as a result of its capacity to address the limitations of human capital theory in elucidating structural issues associated with the transition from education to employment, network theory has been employed in recent times (Granovetter, 1985). According to this theory, the network of relationships developed within and between institutions and individuals, which fosters trust, directly influences the transition from school to work (Özer, 2020c; Rosenbaum et al., 1990; Zucker, 1986). Therefore, network theory suggests that individual skills and competencies alone are not sufficient and that different structures are influencing the transition from school to work, some of which can be explained by the network of relationships.

In conclusion, when the problems are not acknowledged to be associated with existing structures, the burden of the problems is placed solely on the shoulders of individuals, leaving them isolated and devalued in the face of the system. Even though the exclusion of refugees from employment is related to numerous factors, it is often perceived as a personal deficiency (Masoud et al., 2020). Particularly, although school dropout rates among young people from immigrant and minority backgrounds are highly visible in relevant countries, the issue is mostly evaluated through an individualistic approach, leading to insufficient

academic research on the socio-economic conditions outside of school that contribute to such outcomes (Lindblad and Lundahl, 2020; Lundahl and Lindblad, 2018). Thus, structural problems continue to persist at various levels. In this context, Jarvinen (2020) posits that attributing responsibility for employment and career outcomes to young people from disadvantaged backgrounds serves to perpetuate existing inequalities in education, employment, and career opportunities among social classes in society. Similarly, in the context of refugees, Masoud et al. (2020) also indicate that unemployment and inequality persist for refugees because the focus is on the individual and solutions to other structural problems are not addressed.

Indeed, the book underscores the enduring nature of inequities in this context, recalling the seminal works of Bourdieu (1973) and Bourdieu and Passeron (1990) who highlighted the function of education in perpetuating inequalities in society many years ago. It is underscored that educational systems serve to perpetuate the status quo by maintaining the existing social hierarchy and by conferring greater value on the cultural and social capital of the upper classes through the existing system. It is seen that the type of education that most clearly demonstrates this function is VET context(Bernardi and Ballarino, 2016; Bertocchi and Spagat, 2004; Bol and Van de Wefhorst, 2013a, 2013b; Breen and Jonsson, 2005; Breen, 2005, 2010; Brunello, 2004; Özer and Perc, 2020; Reichelt, Collischon, and Eberl, 2019).

The book's emphasis on the frequent interconnection between challenges encountered during the transition from education to employment and the labor market, as opposed to the education system itself, aligns with the ongoing discourse on the transition from VET to employment in our country. In Türkiye, it is observed that the problems associated with this transition, which are actually related to the labor market, have been ignored

for years, and the majority of the problems are often associated with VET. Therefore, VET is often scapegoated for this transition (Özer, 2018, 2019a, 2019b, 2020a; Özer and Suna, 2019, 2020). Therefore, despite the implementation of various enhancements to VET, it is evident that not all challenges associated with the transition from education to employment can be inherently resolved. On the other hand, as the entirety of the issue is linked to the domain of education, the focus is placed on the efficacy of the implemented initiatives, thereby perpetuating a vicious cycle within the VET sector. This scenario underscores the necessity for a comprehensive assessment of both the educational and labor market realms to devise a long-term solution to the challenges encountered during the transition period in diverse contexts (Özer, 2020a, 2020b, 2020c).

On the other hand, it is observed that youth research predominantly focuses on urban youth, ultimately leading to the misconception that all problems, including transitioning from school to work, are considered as urban or urbanization issues (Lundahl and Brunila, 2020). In fact, given the potential for these challenges to be even more pronounced in rural and remote regions, there is a clear need for further research to address these issues in these areas. A comparable necessity exists concerning VET in Türkiye. For instance, although the employment and labor force participation rates of graduates from vocational Anatolian High Schools are high in the labor market, the employment rate in labor market positions compatible with their education is low. A study investigating the underlying causes of this issue demonstrates that primarily there are insufficient employment opportunities in the labor market for the field of education, and secondarily, there is a lack of sufficient wage differentiation between in-field and out-of-field employment (Suna et al., 2020). The same research, especially if repeated in different cities and

districts, can help identify how the sources of this issue are geographically distributed and facilitate planning accordingly.

Conclusions

The relationships between young people and both the education and labor markets constitute the main agenda of all countries. The newly published book "Youth on the Move" by the University of Helsinki primarily provides a valuable and up-to-date perspective on transitions between educational levels and from education to the labor markets in the Scandinavian countries from various angles. The book particularly emphasizes that the sources of the problems are so complex and multidimensional that they cannot be reduced to the personal characteristics of young people.

The reduction of absenteeism and dropout rates at all levels of education is a multifaceted issue that extends beyond the purview of educational policies. It necessitates the examination of non-school factors that may contribute to school dropout and absenteeism, as well as the implementation of improvements in these areas. Factors at the individual level, such as learning difficulties, disabilities, mental health issues, and academic failure, play a role (Casillas et al., 2012; Lindblad & Lundahl, 2020; Myklebust, 2012; Quiroga et al., 2013), as well as societal factors such as low income and education levels of families, issues related to family and neighborhood structures, and lack of socio-economic resources (Lindblad & Lundahl, 2020; Ostergaard et al., 2014; Rumberger, 2011). Particularly, early detection of problems and the establishment of early warning mechanisms for potential dropouts and failures are of great importance.

On the other hand, the continuation of post-school education or integration into the labor market is also related to how well education supports transitions to both areas and is associated

with numerous factors outside of education. In other words, both issues require a multidisciplinary approach. Problems related to education and the labor market are associated with numerous factors both within and outside their respective domains. Therefore, the transition from school to work is a multifaceted phenomenon, with numerous structures influencing its trajectory. Each structure plays a role in either exacerbating or alleviating the problem. The individualistic approach, which assumes that all problems are centered on the individual, not only devalues the individual and keeps them under constant pressure but also allows structural problems to persist. Consequently, while the dynamics of each country may vary, problems can only be addressed effectively through a structural approach.

It has been observed that the majority of issues encountered during the transition from school to work can be attributed to the labor market, rather than to shortcomings in the educational system. In the event of an economic contraction within a given country, accompanied by a dearth of available job positions within the labor market, the transition from education to work will inevitably become a significant challenge. However, this issue will not solely be the responsibility of education. In fact, an approach that neglects the labor market indirectly prevents adopting a structural and systematic perspective on transition mechanisms. When the transition area's comprehensive mechanisms are not acknowledged, the issue tends to be approached with an individualistic view rather than a structural one. In this case, the problems are associated not with the system but with the individuals' own failures. Consequently, individuals focus on themselves and take full responsibility for improving their skills and competencies, being forced to deal with the challenges of the transition system alone. On the other hand, problems stemming from structures in the transition

from school to work also remain unresolved. Therefore, the book actually provides the opportunity to see the problems from different dimensions, emphasizing the importance of a holistic approach to the problem of transitioning from school to work. Additionally, the book has the potential to significantly contribute to understanding the backgrounds of the problems in transitioning from school to work in VET in our country as a whole.

Finally, it is imperative to recognize that the economic cost of excluding young people from society is significant, as they represent a valuable resource with the potential to contribute to economic growth (Ministry of Employment and Economy, 2012). Therefore, it is essential to consider the implications of their integration into the economy through various strategies that can reduce this cost. This necessitates a comprehensive examination of the fundamental aspects of a person's place in society. The same approach is evident in approaches to refugee integration (Masoud et al., 2020). Although integration entails multidimensional participation in society, it is often solely associated with labor market participation (FMEE, 2016; Masoud et al., 2020; MEAE, 2016; Saukkonen, 2017). Therefore, using employment as the sole indicator of successful integration reflects a perspective that views individuals as mere economic entities and reduces problems to individual contexts. However, beyond integration, the transition from education to employment constitutes a multidimensional social issue, deserving humanitarian solutions beyond just employment. Of course, to transition to this stage, the problem must first be evaluated in this context.

Education Policies that will Contribute to Reducing the NEET Youth in Türkiye

The NEET (Not in Employment, Education, or Training) rate, used to describe young people who are not in education or employment, serves as a reference point for the policies developed by countries targeting their youth. Although different age ranges are used for NEET, OECD countries often refer to the 15-29 age range. While it is expected that this age group should be either in education or employment, the absence of both options represents an area that countries need to examine and identify issues related to it. Therefore, countries develop significant policies and make substantial investments to reduce NEET rates. Unfortunately, Türkiye ranks among the OECD countries with the highest NEET rates.

It is particularly troubling that this concept is absent from the discourse on both educational and labor market issues in our country. In fact, the NEET rate is a very important indicator of the performance of the transition between education and the labor market. It is evident that a multitude of factors contribute to this rate. When these factors are not considered, it can result in simplistic conclusions about NEET. However, it is observed that in countries with strong mechanisms for transitioning from education to the labor market, this rate is quite low. Therefore, policies related to education ultimately have the potential to reduce the NEET rate. Indeed, studies highlight education-related policies because interventions made during the education period directly impact employability.

In this context, it is observed that our four important policies will significantly reduce the NEET rate for 2022. Foremost among these is the strengthening of VET. The improvements resulting from steps taken to enhance vocational education centers are particularly significant in this regard. At the end of 2021, the number of apprentices and journeymen in vocational education centers was 159,000, whereas, by the end of 2022, this

number had risen to 1.2 million. Even more importantly, 81% of the 1.2 million apprentices and journeymen are over the age of 18. Consequently, the policy has facilitated the inclusion of numerous young individuals who fall under the NEET category in educational programs.

Another noteworthy initiative pertains to the remedial program offered at vocational education centers. Regrettably, our country lacks effective mechanisms for the transfer and updating of skills. This situation condemns individuals to remain in their acquired educational level throughout their lives. In other words, when there are no employment opportunities in the field they were educated in, they cannot acquire new skills that could provide new employment opportunities, thus moving further away from employment. Moreover, as mentioned in previous sections, the need for significant development in adult education in our country increases the urgency of this need.

To address the current gap, we have developed short-term vocational education center remedial programs lasting 6-8 months for upper-secondary school, associate degree, and bachelor's degree graduates. The brief duration of the program allows for an exclusively workplace-based training approach, with successful completion leading to graduation with a master's degree. The fact that approximately 600,000 young people with upper-secondary school or higher education have applied for this program within one year of its implementation demonstrates the program's importance. Additionally, it indicates that the unemployment of these young people is related to the fields in which they were educated. Thus, these young people will be able to update their skills and transition easily into the labor market, making them employable. Therefore, this program will significantly contribute to reducing the NEET rate in our country.

The policy to expand early childhood education in 2022 is expected to make a substantial contribution to the reduction of the NEET rate. In 2022, the government established 6,004 new kindergartens and implemented significant enhancements in the enrollment rate for children between the ages of three and five. For example, the enrollment rate for five-year-olds increased from 65% to 99% in just one year. Beyond the long-term benefits of this early childhood education initiative in enhancing equal opportunities in education, it will also greatly contribute to the employment of single parents and women. When the cost of early childhood education is compared to potential earnings from employment, individuals who might otherwise stay out of the workforce are more likely to seek employment when this service is provided for free and becomes easily accessible. As a result, this education policy also has the potential to increase employment and thus reduce the NEET rate.

Another important policy area is tracking young people of school age who are not in education and including them in the education system. Our efforts in this regard have quickly reflected improvements in secondary school enrollment rates. While the enrollment rate in secondary education was 90% in 2021, it rose to 95.06% by the end of 2022. By intensifying these efforts during the initial three-month period of 2023, the objective is to achieve an enrollment rate of 99% in secondary education. Another significant project we implemented in 2022 to reduce dropout rates is the early warning system. The system enables the identification of students at risk of early withdrawal from the educational system, thus facilitating the implementation of the requisite measures. It was gratifying to observe the initial outcomes of this project in its inaugural week. As a result of the effective work of provincial and district organizations within the first week, the enrollment rate in secondary education increased

by approximately 1%, from 95.06% to 95.97%. In this context, the early warning system that prevents students from leaving school early and the project to reintegrate young people who should be in school but are outside of it will also make a significant contribution to reducing the NEET rate.

Finally, as mentioned earlier, as the Ministry, we not only provide education services to the school-age population but also offer education services to adults through public education centers. While approximately 4-5 million citizens benefit from this service every year, we reached over 13 million citizens in 2022. Especially considering the preference for courses that support employability and the fact that about 65% of the attendees are women, it is evident that this service will also make significant contributions to employability and consequently reduce the higher NEET rate among women.

Epilogue: Barriers to Equal Opportunities in Education and Solutions

Notwithstanding the establishment of a universal education system at all levels and the implementation of requisite physical and infrastructural investments, the issue of discrepancies in academic performance between educational institutions persists. As it is known, the increasing disparities in academic achievement between schools can lead to the school a student attends becoming a determining factor in their academic achievement. On the other hand, studies on inter-school achievement disparities indicate that these differences develop over time and, if left unaddressed, they become increasingly entrenched. Therefore, while inter-school achievement disparities are very visibly manifested in high schools, particularly in upper-secondary education, they actually begin at the elementary education level and widen as students progress through the education levels. In other words, those who start with educational advantages tend to continually increase those advantages, while those who start at a disadvantage unfortunately tend to be pushed into an even more disadvantaged situation.

It can be reasonably deduced that, in the absence of corrective policies, disparities in academic achievement between students and schools will continue to increase. In many countries that have achieved universality in various levels of education, such as Norway, the United Kingdom, and the United States, the formation and reduction of high achievement gaps have been topics of discussion. This issue, which has become a global concern but is particularly prevalent in Türkiye, can be conceptualized in two dimensions. The first dimension is related to the differences in achievements that students bring from outside school environments, while the second dimension appears to be related to schools' capacity to reduce these differences.

To represent the characteristics students bring from outside of school, a comprehensive variable called 'socioeconomic

status' is used, summarizing their opportunities and family background. A substantial body of research has demonstrated a robust correlation between socioeconomic status and a range of cognitive and non-cognitive abilities. In fact, the relationship between socioeconomic status, which represents out-of-school characteristics, and educational outcomes is often stronger than many variables within the school environment. On the other hand, every child's family socioeconomic status is different, and these differences among students have the potential to reflect on educational outcomes. Today, we can clearly see that these differences are reflected in student performance in the early stages of education.

It is imperative to acknowledge the pivotal role of early childhood education in a child's development and to understand the rationale behind the substantial investments made in this educational stage. Particularly considering recent longitudinal research results, individuals who have received early childhood education show higher levels of achievement in both the short and long term. Their duration of staying in education and employment is also much longer, and additionally, their rates of committing crimes are lower. In this context, access to early childhood education is utilized as an important mechanism not only to support cognitive skills but also to foster social-emotional and citizenship skills. Most developed countries have increased enrollment rates in early childhood education to over 90%, thereby gaining access to more quality education with early developmental support and strengthening equal opportunities. Therefore, early childhood education is considered as an educational level that provides the highest long-term returns with the lowest cost. Given that skill acquisition is easier in the early years and differences between students are still at an initial stage, the potential provided by early childhood education can

be clearly seen. The cost of remedying the lack of these gains provided by access to early childhood education in later years is quite high, and the efficiency of remediation is also debatable.

In our country, while enrollment rates in other levels of education are above 90%, unfortunately, despite improvements made over the past 20 years, enrollment rates in early childhood education have not reached the desired level. In 2021, the enrollment rate for children aged three was 9%, for those aged four it was 16%, and for those aged five, it was approximately 65%. Notwithstanding the increase in enrollment rates at age five from approximately 11% to 65% over the past two decades, the desired level has not yet been reached. In 2021, there were 2,782 kindergartens nationwide. Furthermore, research demonstrated that involvement in early childhood education in Türkiye was markedly associated with socioeconomic status. This underscored that, in addition to limited access, children from more privileged backgrounds were further widening the gap between themselves and their less advantaged counterparts by participating more in early childhood education. Ultimately, universalizing this level of education became a necessity to fully utilize all the potential of early childhood education in enhancing equal opportunities in education.

In line with this goal, we have identified the expansion of early childhood education as our priority policy. On one hand, to reduce inter-school achievement disparities, and on the other hand, to ensure that all our children benefit from the opportunities of early childhood education, we launched the " Early Childhood Campaign" initiative in 2022 to build 3,000 new kindergartens, with a thousand of them in Istanbul alone. With a very intensive monitoring system, we managed to create the capacity for 6,004 new kindergartens in just one year. In other words, we created twice the capacity of our target capacity, surpassing the

capacity of kindergartens in Türkiye by over three times before the project. To achieve this goal, we pursued four different strategies: constructing new kindergarten buildings, converting unused buildings into kindergartens after maintenance, utilizing Science and Art Centers as kindergartens during the daytime, and repurposing vacant classrooms in school buildings as kindergarten classrooms.

These steps resulted in a notable enhancement in enrollment rates for early childhood education. Specifically, the enrollment rate at age 3 increased from 9% to 16%, and at age 4 it increased from 16% to 38%. At age 5, the enrollment rate increased from 65% to 99%. Thus, in 2022, a significant historical transformation was achieved in early childhood education, the stage where inter-school achievement disparities begin. Our initiatives ensured the realization of Türkiye's long-term goal of "every child receiving at least one year of early childhood education."

Over the past year, notable advancements have been made, and efforts are being made to further build upon this progress. Although the country has achieved universal enrollment at age five, its rates of enrollment for children aged three to five in early childhood education programs remain below the Organization for Economic Co-operation and Development (OECD) average. Therefore, we aim to extend the momentum we have achieved at age 5 to the access of our children aged 3 and 4 to early childhood education. In 2023, we aim to increase the enrollment rate at age 3 from 16% to 50% and at age 4 from 38% to 70%. Achieving these goals will ensure the widespread availability of early childhood education for all age groups, allowing all our children to benefit from the contributions of early childhood education.

The second issue, namely reducing the disparities brought to school, stands as a challenging and widely debated issue

worldwide. At this point, the question arises of how differences caused by the characteristics students bring from outside school can be equalized through school mechanisms. At this juncture, it is imperative to interrogate how schools can become institutions that not only reproduce but also reduce inequalities in society. In the answers to these questions, it becomes evident that specific attributes of educators and school administrators merit particular attention. Indeed, teachers and school administrators play a critical role in making schools more egalitarian through their educational methodologies, attitudes, and management styles. A pertinent illustration of this phenomenon is the observation that as educators' expectations for student achievement diminish within the educational system, student achievement also markedly declines. The situation in our country is even more crucial. The Trends in International Mathematics and Science Study (TIMSS) is designed to assess the mathematical and scientific proficiency of students in the fourth and eighth grades, while also investigating the relationship between these outcomes and various contextual factors, including school, teacher, and student characteristics. Therefore, TIMSS findings can enlighten us on this matter. In this context, examining the last two surveys, the 2015 and 2019 TIMSS results, will provide sufficient information.

According to the school administrator assessment in the TIMSS 2015 results, the difference in average mathematics achievement scores between schools in Türkiye that highly prioritize academic achievement and those that moderately prioritize it is 91 points at the 4th-grade level, while this difference increases to 163 points at the 8th-grade level. Similarly, the difference in average science scores between these schools is 85 points at the 4th-grade level and increases to 138 points at the 8th-grade level. Notwithstanding the notable advancements observed in the

TIMSS 2019 administration, the discrepancy between educational institutions ascribing either a very high or moderate level of significance to academic achievement remains considerable. At the fourth-grade level, the gap stands at 76 points, while at the eighth-grade level, it reaches 107 points. When considering all countries together in the TIMSS 2019 administration, the gap in science achievement between schools that attribute very high and moderate levels of importance to achievement is 34 points at the 4th-grade level and 68 points at the 8th-grade level. As observed, the differences observed in our country exceed the TIMSS average significantly.

According to the teacher assessment in the TIMSS 2015 study within the same category, in Türkiye, the difference in mathematics scores between 4th-grade levels is 83 points, while this difference increases to 104 points at the 8th-grade level. The TIMSS average for mathematics is 27 points at the 4th-grade level and 51 points at the 8th-grade level. In the field of science, the difference in our country is 74 points at the 4th-grade level and increases to 90 points at the 8th-grade level. The corresponding differences in TIMSS averages are 31 points and 49 points, respectively. In summary, both school administrator and teacher assessments indicate a significant relationship between the importance attributed to academic achievement and student achievement, with this relationship being stronger in Türkiye.

These findings indicate two clear characteristics. First, the relationship between school administrators' and teachers' approach to students and their expectations for achievement, and students' achievements in science and mathematics is significantly more robust in our country in comparison to other countries. Another important point is that this difference at the primary school level deepens much more at the lower-secondary school level. In other words, any advantage-based gap tends to

strengthen as education progresses to higher levels. Therefore, the level of school readiness enhances a student's academic achievement through the expectations set by teachers and school administrators. This negative situation can be significantly improved by increasing the enrollment rate in early childhood education, as mentioned above. However, to reduce the impact of teachers' and school administrators' expectations on students' academic achievement, comprehensive training programs should be organized for them to increase awareness of this issue. Furthermore, academic support programs should be effectively utilized to support all students, while maintaining realistic and high expectations for achievement.

On the other hand, the subject of the impact of teachers' professional seniority on student achievement is an important issue that needs to be emphasized. As is known, teacher characteristics are among the most influential factors in the development of students' cognitive and non-cognitive skills. Professional seniority holds a significant place in this regard, and the relationship between professional seniority and student skills has become a research area. TIMSS studies provide comparative data on this issue. When all TIMSS countries are considered together, it is observed that as teachers' professional seniority increases, students' scores in science and mathematics consistently increase, but this increase is quite limited. However, it is noteworthy that the relationship between teacher seniority and student achievement is much stronger in Türkiye. For instance, in Türkiye, the score difference between students in schools where teachers with over 20 years of professional seniority teach and students in schools where teachers with less than 5 years of professional seniority teach ranges from 64 to 92 points at the 4th-grade level (92 The discrepancy in scores between students in schools where teachers with varying levels of professional seniority teach is notable. In

the 2015 application, the difference in scores was 2 points, while in the 2019 application, it ranged from 64 to 92 points at the 4th-grade level and from 56 to 92 points at the 8th-grade level). However, the TIMSS average for this difference is only between 8 and 9 points at the 4th-grade level (8 points in 2015, 9 points in the 2019 application), and between 7 and 11 points at the 8th-grade level (7 points in 2015, 11 points in the 2019 application). There is a significant disparity here.

A similar pattern can be observed concerning the differences in science achievement. In Türkiye, the score discrepancy between students in schools where teachers with over 20 years of professional seniority instruct and students in schools where teachers with less than five years of professional seniority teach ranges from 80 to 83 points at the fourth-grade level. In 2015, the difference was 83 points, while in 2019 it was 80 points. At the eighth-grade level, the difference ranged from 62 to 65 points (65 points in 2015 and 62 points in 2019). However, the TIMSS average for this difference is only between 7 and 8 points at the 4th-grade level (8 points in 2015, 7 points in 2019), and only between 1 and 4 points at the 8th-grade level (1 point in 2015, 4 points in 2019). In other words, while no significant correlation is found between the teacher's years of professional seniority and students' science and mathematics achievement in other countries participating in TIMSS, a significant achievement gap emerges in Türkiye.

This considerable discrepancy between professional seniority and student achievement is indicative of a significant deficiency in the quality of teacher training in Türkiye. In the TIMSS 2019 assessment, Türkiye was identified as the country with the most pronounced achievement gap between students taught by teachers with over 20 years of professional seniority and those taught by teachers with less than 5 years of seniority,

as illustrated in the example provided earlier for 4th-grade mathematics. This situation demonstrates a stronger relationship between teacher seniority and student achievement than what is typically observed. The results suggest that teachers in Türkiye exhibit performance comparable to that of teachers in developed countries only after entering the education system and spending many years within it. Consequently, this finding underscores the decisive role of teacher seniority in student achievement. Therefore, teacher training in Türkiye needs to be thoroughly examined at the higher education level. Otherwise, it will not be possible to completely eliminate the disparities in academic achievement between schools within the education system.

In conclusion, the implementation of cohesive strategies is essential for the expeditious elimination of inter-school achievement gaps. As evidenced by TIMSS data, the widespread expansion of early childhood education and the assurance that teachers are adequately prepared at the outset of their careers play pivotal roles in the advancement of educational equality. In this context, the steps taken by the Ministry of National Education (MEB) over the past year, especially in the universalization of early childhood education, are of historic importance. MEB's initiatives to diminish inter-school discrepancies in resources, particularly the distribution of budgets to each educational institution, represent a noteworthy advancement. However, teacher training remains a fundamental issue in Türkiye. In this regard, MEB's focus on in-service professional and personal development training alone is not sufficient to solve this problem. Similarly, while MEB's prioritization of newly recruited teachers in its "Teacher Meetings" initiative and the activation of professional development activities for all teachers yield positive outcomes, a more comprehensive approach to the issue is necessary. Indeed, studies on teacher competence

highlight the necessity for both the effectiveness of the teacher training process and in-service education policies to ensure high teacher performance. Evaluating the issue of teacher training comprehensively within the context of higher education and making significant improvements stands out as the most urgent issue to be addressed for achieving educational equity.

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From behind a fine curtain, we can see that society is in the midst of an inevitable and profound transformation. A variety of our daily habits, such as communication methods, shopping ways, and (un) expression of emotions have changed significantly over the years and continue to change. This transformation extends beyond daily habits; for the first time in history, we have created our rival on the labor market: artificial intelligence. In fact, this era of transformation is marked by technological advancements on the one hand as well as social challenges and opportunities on the other. To force opportunities and improvement over challenges, education poses the greatest challenge in this era of transformation. The author, Mahmut Özer, articulates meticulously three keys for Türkiye to transform its education system in accordance with his esteemed experiences as Minister: equality, inclusion, and quality. "The Future of Education in Türkiye: Equality, Inclusion and Quality" provides a glimpse into recent progress in these areas over recent years as well as further steps for a competitive and strong education system of the future.

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