

RESEARCH ARTICLE

Improving Equality in the Education System of Türkiye

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Abstract

Success breeds more success, the rich get richer, and the powerful get even more powerful. These are often true in human societies and describe the situation where whatever advantages one has in life frequently beget further advantages over time. The social sciences often describe this phenomenon as the Matthew effect of accumulated advantage, and it is known as preferential attachment in network science. The starting point of the process is often due to the first-mover advantage, under which the first person that achieves something will receive recognition and praise at a rate significantly higher than a person who achieves the same at a later point in time. All this boils down to the fact that unequal opportunities early on in education can translate into greater inequalities later in life. A major goal in the Turkish education system is therefore to ensure equal opportunities as well as equal quality of educational processes starting in preschool and beyond. This study explores the thought processes that have led to the implementation of procedures toward this goal, compares the current state in Türkiye with other OECD countries, and outlines future steps that are in the making for reaching targets throughout the educational system.

Keywords: Educational equality • Matthew effect • Cumulative advantage • Preferential attachment • Education policy • Preschool education

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Equality is quite elusive in human societies. Humans are not actually equal. While humans may be equal under law, with equal rights and opportunities, humans are simply not equal in terms of biology, whether in relation to physical or to mental abilities. Research also suggests that inequalities and more generally diversity may help in cooperating with one another and contributing to the public good (Hauser et al., 2019). Moreover, someone who is better gives people something to which they can aspire. Humans can set higher goals for themselves, and believing in these goals is easier because somebody has achieved them before (Zang & Perc, 2010). Many examples can be put forward to support this line of thought, such as through sports records, business earnings, and scientific discoveries.

The crux of the story, however, is in the fact that biology did not make humans so very different as they have now become on the wings of science, progress, and the many possibilities to make fantastic headway when given a great idea, some luck, a lot of hard work, or any combination thereof. Put simply, nothing exists in human biology that distinguishes individuals so much as the current difference between the richest and the poorest people on the planet. A person can be two or three times as fast as another, or even ten times smarter than the average person by some metrics. Yet humans have created societies where these relatively very manageable differences in biology can translate to truly huge differences in status, earnings, power, influence, and quality of life in general (Kakwani, 1980).

What is more, even the absence of any striking biological characteristic is not preclusive to sometimes being very successful in today's world due to things like nepotism, connections, and networking. Perhaps, and probably even likely, this was always the case, but the historical perspective is neither really important nor central to the argument here. Looking at some of the people who have ascended to important positions of power in the past and nowadays is enough. Is this possibly just dumb luck sometimes, or is it one's lineage or subservience? In truly aiming to understand and answer questions like this, one also has to agree rather quickly that equality, in whatever context of human life, is truly elusive and indeed even difficult to describe (Spiegelberg, 1944).

Therefore, when writing here about equality in the Turkish education system, what is desired is to emphasize that the starting point is meant to be preschool. In so doing, the emphasis is thus on a point in the lives of children when their biological differences have yet to be potentiated by all the successes and failures they all acquire as they grow up. The key point is that, even if biology provides children with different abilities to climb the educational ladder, equal opportunities should be had by all, as well as equal educational quality. This should also be the case very early on in their educational paths (Coleman, 1968).

In the following sections, this study expands upon the motivations behind this path toward equality in the Turkish education system and presents data that reveal the current equality policies in Türkiye. The study concludes with an outlook of the plans and future steps that are in the making for achieving targets throughout the educational system and discusses the wider implications of the proposed policies.

Motivations Behind Equality

To write that equality is aimed for in the Turkish education system is pleasing because the country wants to counteract the different backgrounds children are born into and provide everybody with a chance at obtaining knowledge and exploring their potentials to the fullest. In doing so, the hope is that the staggering inequalities that are seen among adults in today's human societies will be lessened to a more acceptable point. This is indeed the study's honest intention as it is being written.

The theoretical rationale behind this thinking lies in the Matthew effect (Rigney, 2010), which describes the general pattern of self-reinforcing inequality that often starts with education and ends with very poor lifelong prospects for economic wealth, power, and prestige, or in other simpler words, for a good and comfortable life. Although the examples put forward to describe the Matthew effect are often rooted in folktales and lack firm quantitative support, they can nevertheless be supported by plausible arguments. For example, being born into poverty greatly increases the probability of remaining poor, and each further disadvantage makes escaping the economic undertow increasingly difficult. The Matthew effect also contributes to a number of other concepts in social sciences that may be broadly characterized as social spirals. Economists speak of inflationary spirals, spiraling unemployment, and spiraling debt. These spirals exemplify positive feedback loops in which processes feed upon themselves in such a way as to cause nonlinear patterns of growth. Thus, equality in education should provide a chance for all to benefit from this kind of cumulative advantage and translate to greater equality later in life (Perc, 2014).

However, when looking at some countries where access to education is already much more equal compared to other places, one does feel perplexed as to why this is so, given that countries with arguably very good education systems are often also those with the largest gaps between the rich and the poor and with very little social support for those that do not succeed. The argument in the latter case then seems to be along the lines of that everybody has their chance (Jackson, 2009).

One difficult question therefore follows: Does Türkiye promote equality in education simply to exploit to the fullest the potential in society to best serve higher interests? When one answers this with a thinly disguised “no” and shelve the question as conspiracy, then what options does society have to corroborate the answer when the

data shows very little interest in equality to be found among the wealthy and the powerful. When one answers with a yes, then one has to begin navigating a complex maze of additional questions aimed at clarifying who is exploiting whom, what are these higher interests being mentioned, and why are such questions being asked in the first place.

However, one can entertain difficult questions still a bit further. In some countries, equal educational opportunities and educational quality is truly fascinating, yet education is also so time consuming, demanding, strict, and authoritative that one can also ask the following: Is education like this not only to exploit people to the fullest the potential in societies so as to best serve higher interests, but also to deprive children and young adults from time that would be needed to develop any critical thoughts about the system in which they live?

In order to not ponder counterproductively, the study aims for the record to retain Türkiye's intention for equality to be implemented in the education system to counteract the different backgrounds children are born into and to provide everybody with a chance early on in life to obtain a high-quality education with the hope that cumulative advantage processes will later on deliver on their premise. Yet, the aim is also to have the record show retrospectively that Türkiye is at least to some degree aware of the unwanted consequences that seem to have transpired in other countries where equality in education is already a staple of the education system.

A final note regarding unwanted consequences, recent research at the interface of social sciences and hard sciences has shown that even minute changes in public policy can lead to unforeseen and catastrophic shifts in social life over time (Jusup et al., 2022). Such transitions are known in physics as discontinuous phase transitions, or sudden changes in the phases of matter that are brought about by very small changes in parameters that determine conditions such as temperature or pressure. Qualitatively, the same phenomena happen in human societies, and according to still very simple models of social dynamics, are in fact common and barely foreseeable. Adjusting public policy with confidence and control in this light is therefore unfortunately nothing more than an illusion, as the consequences are often impossible to determine in advance, despite having the best of intentions. Unwanted consequences thus seem to be a largely unavoidable consequence of the complex social dynamics governing societies.

Equality Policies in Türkiye

Turning to concrete data for Türkiye, these currently show that indicators of equality have increased remarkably in recent years. Four main areas were prioritized for an equitable education system: universalization of preschool education, alleviating the gaps between schools, improving teachers' professional development, and strengthening

the vocational education and training (VET) system (Özer, 2022b). These priorities represent the diverse aspects and elements of education system and a concurrent improvement is aimed for a holistic growth. The holistic improvement is highly needed for the education system of Türkiye that have had chronic problems (Özer, 2022c).

Firstly, preschool enrollment has been prioritized based on its contribution to lifelong impact (Bakken et al., 2017; Özer et al., 2021a; Suna & Özer, 2022). The preschool education enrollment is critical both for students' cognitive and social skills with even a bigger impact in educational equality. Enrollment has increased significantly in recent years in Türkiye, with the net rate of 5-year-old children enrolled in preschool increasing from 39% in 2012 to 78% in 2020 (Ministry of National Education [MoNE], 2022a). Despite the drastic rise in enrollment rates, the need has also been present for additional efforts at universalizing preschool education. In the last 8 months, numerous steps have been taken to increase enrollment rates, with the aim being chosen as 93%.

The increase in preschool education enrollment has been quite important, but this is not enough. Studies have shown preschool education enrollment to be significantly related to socioeconomic status (SES) in Türkiye (Suna & Özer, 2022). This means that children from families with higher SES both participate more frequently in preschool education and benefit more from family support and home resources. Consequently, students from families with higher SES increase their advantageous background even more before primary education. This widens the gap among students from diverse SES backgrounds before the starting point of primary education.

Support for preschool education enrollment has been provided through multiple aspects in Türkiye: firstly, enrollment in less populated areas was prioritized. The number of students required to start a kindergarten class in these areas was reduced from 10 to 5, with more than 12,000 students having enrolled in the new kindergartens in a few weeks (Özer et al., 2021b). Secondly, the government announced a new financial support program for preschool education enrollment. Within this scope, 500 Million TL financial support for the preschool enrollment was announced by the government. Thirdly, prefabricated and container-based kindergartens with adequate materials were established in schools with limited physical space, with 3k preschools and 40k kindergartens planned to be established. In an approximately one year period, more than 1.1k preschools and almost 11k kindergartens were established. This new schools and kindergartens rises the preschool capacity drastically in Türkiye. All these steps have led to a significant increase in enrollment, with school enrollment increasing from 78% to 93% in just 8 months.

The gap among schools' environments has been another factor that has been considered for alleviating educational inequalities in Türkiye. A major effort was made to improve school environments and provide equal opportunities all around Türkiye.

Firstly, reading skills and literacy were prioritized, and new libraries were established in 16,361 public schools. It is ensured that all schools have at least one library in Türkiye. Reading resources were also enriched, with the number of reading materials in public schools having increased from 29 million to 70 million (MoNE, 2022a). It is also planned to increase the number of books in school libraries to 100 million in Türkiye. Additionally, cultural reading series from MoNE have also been digitalized and restructured as audiobooks. In this manner, all school environments were equipped with libraries, and these libraries are supported with conventional and digital materials.

Expanding educational materials and extending academic support programs have also been critical for mitigating the achievement gap present between schools. Coverage was extended for remedial education programs and support mechanisms (remedial education & support programme in primary education [İYEP] and support and education courses [DYK]), with more students benefitting from academic support and more resources being provided to further learning (MoNE, 2022a, 2022b). These programs aim to support the students who cannot acquire the expected skills and educational outcomes in different educational stages. Secondly, the materials for academic support were developed by MoNE and distributed to all students free of charge as an addition to the course books – which are published and distributed to students free of charge since 2003. These steps were particularly beneficial for students in need of additional support or from disadvantaged backgrounds (Özer et al., 2021b).

Large-scale projects have been implemented to improve school's physical environments and to support students, teachers, and parents. For the first time, large-scale school-centered support programs have been implemented. The 1,000 Schools in Vocational Education and Training (VET) was a pioneering project that involved most disadvantaged VET high schools in Türkiye (Özer, 2021a). Schools' infrastructure and environment were improved, remedial programs were provided to students, teacher trainings were intensified, and parents were encouraged for further educational attainment (Özer, 2022a). The project covered 25% of all VET high schools, more than 600,000 students, and 40,000 teachers in Türkiye. The positive outcomes from this project led to another comprehensive project, the 10,000 Schools in Primary Education project, which covers primary education.

Thirdly, priority was given to teachers' professional development. A new training approach was implemented in consideration of teachers' qualities being the key factor in educational quality. This approach authorized schools to determine their learning needs, and adequate budgets were allocated to each school. Additionally, the diversity and coverage of training programs were extended drastically. Recently, almost all teachers (99.9%) participated at least one in-service training at all ISCED levels from preschool to upper secondary education in 2022. A new digital platform called the

Teacher Informatics Network (ÖBA) was dedicated to online teacher trainings. These steps were critical for increasing school autonomy regarding training needs and positioning schools as teacher training hubs. Despite the negative impact of COVID-19, the average number of hours teachers spent training had more than doubled compared to the previous year and reached the peak level in last ten years.

It is important to note that the holistic improvement of education system leads a necessity of improving the awareness and skills of all stakeholders. In this manner, parental involvement in education is considered as a focal point. Trainings for parents were considered as a dimension of aforementioned large-scale projects. In 1,000 Schools in Vocational Education and Training, more than 11k parents benefited from diverse academic and vocational trainings. Same approach is used for 10,000 Schools in Primary Education project, and more than half a million parents participated the trainings recently.

Lastly, the VET system was restructured both to improve both their educational quality as well as to facilitate the school-to-work transition. Collaborations between MoNE and labor market were nurtured, the production capacity of VET institutions was increased, and R&D centers were established (Özer, 2020, 2021b). The rights and income of students were increased through new regulations in consideration of VET students having comparatively lower SES levels in Türkiye (Suna et al., 2020a; Suna & Özer, 2021b). A new era was initiated with apprenticeship training, with the number of students increasing by more than 500% in recent years through increased collaborations with labor markets, higher employment rates, and greater financial support for students (Özer & Suna, 2022). These programs were also structured as reskilling and upskilling centers for adults and were highly demanded by adults from diverse age groups and education levels. Recent statistics showed that a great diversity is achieved in reskilling and upskilling programs within the terms of age groups, education levels and vocational fields.

Outlook and Discussion

Educational inequality has been considered a global problem for decades. Despite the fact that most countries have taken measures against inequalities, these have tended to increase based on rising income and socioeconomic gaps within societies. The Matthew effect of accumulated advantage, also known as preferential attachment, has create significant gaps among students and led to additional challenges for educational policymakers (Özer & Perc, 2020; 2021).

Türkiye has experienced a transformation in education over the last 20 years, during which enrollment rates were increased at most education levels, and most educational quality indicators improved. MoNE has taken a major share of the government budget

both for extending educational services to all strata of society as well as for increasing the quality of education. The increase in investments and common efforts with stakeholders has led to significant accomplishments in education. Türkiye has reached its peak performance in large-scale assessments in recent years, including the Programme for International Student Assessment (PISA) and Trends in International Mathematics and Science Study (TIMSS; Suna & Özer, 2021a; Suna et al., 2020b).

To experience these improvements in the Turkish education system has been satisfying. However, the system has deep-rooted issues regarding educational equality. The achievement gaps among schools have been a major issue in Türkiye for decades. While the problem is obvious, the solution however is not as simple. Recently, Türkiye has taken this issue up as a major problem and taken comprehensive steps for the first time. This paper has discussed the background of educational inequalities and how the Turkish education system deals with this problem.

The common ground in MoNE's steps involves prioritizing those with the greatest needs. In other words, MoNE has taken concrete steps to support students and all stakeholders, with special attention being given to those with disadvantaged backgrounds. This has been reflected onto MoNE's main policies, with preschool education being taken into consideration for creating equal opportunities in the early years, school climate being improved to provide equal opportunities, teacher training being upgraded for a cumulative increase in educational quality, and VET being strengthened to support VET students and national economic growth.

These concrete steps have provided substantial progress in a short while. Enrollment rates have increased in preschool education, participation in teacher trainings has risen significantly, infrastructure differences have been minimized throughout schools, and VET has become a major preference for students as well as an important producer of intellectual property. Efforts for coping with inequalities and short-time outcomes has been remarkable in Türkiye. However, erasing the long-term impact of systematic problems of inequalities such as school tracking has not been easy. Still, education indicators have shown solid improvements in educational equality to be possible and to become probable once multidimensional support is provided.

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References

- Bakken, L., Brown, N., & Downing, B. (2017). Early childhood education: The long-term benefits. *Journal of Research in Childhood Education, 31*(2), 255–269. <https://doi.org/10.1080/02568543.2016.1273285>
- Coleman, J. S. (1968). Equality of educational opportunity. *Integrated Education, 6*(5), 19–28. <https://doi.org/10.1080/0020486680060504>
- Hauser, O. P., Hilbe, C., Chatterjee, K., & Nowak, M. A. (2019). Social dilemmas among unequals. *Nature, 572*(7770), 524–527. <https://doi.org/10.1038/s41586-019-1488-5>
- Jackson, T. (2009). *Prosperity without growth: Economics for a finite planet*. Routledge.
- Jusup, M., Holme, P., Kanazawa, K., Takayasu, M., Romić, I., Wang, Z., Geçek, S., Lipić, T., Podobnik, B., Wang, L., Luo, W., Klanjšček, T., Fan, J., Boccaletti, S., & Perc, M. (2022). Social physics. *Physics Reports, 948*(2022), 1–148.
- Kakwani, N. C. (1980). *Income inequality and poverty*. World Bank.
- Ministry of National Education-MoNE (2022a). *Türkiye’de eğitimin 20 yılı: 2000-2019*. MoNE.
- Ministry of National Education-MoNE (2022b). *Yüzyüze eğitime dönüşte 180 gün*. MoNE.
- Özer, M. (2020). *Mesleki eğitimde paradigma değişimi: Türkiye’nin mesleki eğitim ile imtihanı*. Maltepe Üniversitesi Yayınları.
- Özer, M., & Perc, M. (2020). Dreams and realities of school tracking and vocational education, *Palgrave Communications, 6*, 34.
- Özer, M., Gençoğlu, C., & Suna, H. E. (2021a). The development of pre-school education in Turkey and its’ role in narrowing the educational inequality. *Nevşehir Hacı Bektaş Veli University Journal of ISS, 11*(1), 356–370.
- Özer, M., Gençoğlu, C., & Suna, H. E. (2021b). Policies for alleviating educational inequalities in Turkey. *Ondokuz Mayıs University Journal of Education Faculty, 39*(2), 294–312. <https://doi.org/10.26650/JECS20221116979>
- Özer, M. (2021a). A new step towards narrowing the achievement gap in Turkey: “1,000 schools in vocational education and training” project. *Bartın University Journal of Faculty of Education, 10*(1), 97–108.
- Özer, M. (2021b). The new steps taken for improvement of vocational education and training in Turkey. *International Journal of Turkish Educational Sciences, 9*, 1–16.
- Özer, M., & Perc, M. (2021). Impact of social networks on the labor market inequalities and school-to-work transitions. *Journal of Higher Education, 11*(1), 38–50.
- Özer, M. (2022a). School-based improvement in VET: “The 1,000 schools in vocational education and training project”. *Bartın University Journal of Faculty of Education, 11*(2), 268–279.
- Özer, M., & Suna, H. E. (2022). 2022 first quarterly performance evaluation of vocational training center (VTC) programs after the amendment to the Vocational Education and Training Law No. 3308. *International Journal of Turkish Educational Studies, 10*, 1–17.
- Özer, M. (2022b). *Türkiye’de eğitimin evrenselleşmesi*. Maltepe Üniversitesi Yayınları.
- Özer, M. (2022c). *Türkiye’de eğitimi yeniden düşünmek*. Vakıfbank Kültür Yayınları.
- Perc, M. (2014). The Matthew effect in empirical data. *Journal of the Royal Society Interface, 11*(98), 20140378.
- Rigney, D. (2010). *The Matthew effect: How advantage begets further advantage*. Columbia University Press.

- Spiegelberg, H. (1944). A defense of human equality. *The Philosophical Review*, 53(2), 101–124.
- Suna, H. E., Gür, B. S., Gelbal, S., & Özer, M. (2020a). Science high school students' socioeconomic background and their preferences regarding their transition into higher education. *Journal of Higher Education*, 10, 356–370.
- Suna, H. E., Tanberkan, H., & Özer, M. (2020b). Changes in literacy of students in Turkey by years school types: performance of students in PISA applications. *Journal of Measurement and Evaluation in Education and Psychology*, 11(1), 76–97. <https://doi.org/10.21031/epod.702191>
- Suna, H. E., & Özer, M. (2021a). The achievement gap between schools and relationship between achievement and socioeconomic status in Turkey. *Journal of Measurement and Evaluation in Education and Psychology*, 12(1), 54–70. <https://doi.org/10.21031/epod.860431>
- Suna, H. E., & Özer, M. (2021b). The impact of school tracking on secondary vocational education and training in Turkey. *Hacettepe University Journal of Education*, 36(4), 855–870.
- Suna, H. E., & Özer, M. (2022). The relationship of preschool attendance with academic achievement and socioeconomic status in Turkey. *Journal of Measurement and Evaluation in Education and Psychology*, 13(1), 54–68.
- Wang, Z., & Perc, M. (2010). Aspiring to the fittest and promotion of cooperation in the prisoner's dilemma game. *Physical Review E*, 82, 021115.