Marmara Üniversitesi Atatürk Eğitim Fakültesi Eğitim Bilimleri Dergisi • Temmuz 2026, 64: 563-589 • ISSN: 2147-5202
DOI: 10.15285/maruaebd.1840679

ARAŞTIRMA MAKALESİ / RESEARCH ARTICLE

Measuring Educational Equity: A Cross-Country Analysis

Eğitimde Eşitliği Ölçme: Ülkeler Arası Bir Analiz

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Abstract

Despite the growing interest in educational equity in recent years, there remains a gap in the literature regarding its measurement. The aim of this study is to evaluate countries' performance in educational equity by integrating multi-criteria decision-making methods. Based on a comprehensive dataset from the OECD, the criteria were weighted, and 51 countries were ranked and classified according to their equity performance in education. The MEREC method was used to determine the weights of the criteria, while the MABAC method was employed for ranking the countries. The findings revealed that the policy of providing an inclusive school environment holds the highest importance, followed by contributions to economic and social outcomes, investment in early childhood education, and the development of foundational skills, respectively. In the country rankings, Spain, Austria, Denmark, Germany, and Norway ranked at the top, while the Czechia, Argentina, Slovakia, Brazil, and Indonesia were positioned at the bottom. The findings indicate that educational equity can be achieved not only through the allocation of resources but also through multidimensional factors such as the psychosocial environment, leadership, digital skills, and social well-being. Furthermore, the results highlight the critical role of balanced performance-particularly in prioritised areas-rather than exceptionally high performance in only a few domains. This study provides a data-driven evaluation framework for assessing education systems.

Keywords: education, equity, educational equity, measurement, multi-criteria decision making.

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Atıf için: Maral, M. (2026). Measuring educational equity: A cross-country analysis. *Marmara Üniversitesi Atatürk Eğitim Fakültesi Eğitim Bilimleri Dergisi, 64*(64), 563-589. https://doi.org/10.15285/maruaebd.1840679

Makale Gönderim Tarihi: 12.12.2025 **Yayına Kabul Tarihi:** 01.06.2026

Öz

Son yıllarda eğitimde eşitliğe yönelik artan ilgiye rağmen eğitimde eşitliği ölçmeye yönelik literatürde boşluk bulunmaktadır. Bu çalışmanın amacı çok kriterli karar verme yöntemlerini entegre ederek ülkelerin eğitimde eşitlik performansını değerlendirmektir. Bunun için OECD'nin kapsamlı bir veri setine dayanarak kriterler ağırlıklandırılmış ve 51 ülke eğitimde eşitlik bakımından sıralanmış ve performansına göre kümelenmiştir. Kriterleri ağırlıklandırmak için MEREC, ülkeleri sıralamak için MABAC yöntemi kullanılmıştır. Bulgular kapsayıcı okul ortamı sağlama politikasının en yüksek öneme sahip alan olduğunu ortaya koyarken, bunu sırasıyla ekonomik ve sosyal çıktılara katkı, erken çocukluk dönemine yatırım ve temel becerilerin kazandırılması politikaları takip etmiştir. Ülke sıralamalarında İspanya, Avusturya, Danimarka, Almanya ve Norveç üst sıralarda yer alırken, Çekya, Arjantin, Slovakya, Brezilya ve Endonezya alt sıralarda yer almıştır. Bulgular eğitimde eşitliğin sadece kaynakların tahsisi değil psikososyal ortam, liderlik, dijital beceriler ve sosyal refah gibi çok boyutlu faktörlerle sağlanabileceğini göstermiştir. Ayrıca bulgular eğitimde eşitlik için belirli alanlarda çok yüksek performans göstermekten ziyade öncelikli alanlar başta olmak üzere dengeli performansın kritik rolüne işaret eder. Bu çalışma eğitim sistemlerinin değerlendirilmesine yönelik veri temelli bir değerlendirme çerçevesi sunmuştur.

Anahtar Kelimeler: eğitim, eşitlik, eğitim eşitliği, ölçme, çok kriterli karar verme.

INTRODUCTION

Education is of critical importance for individuals to participate in society and to realize their potential. However, in many countries, socio-economic, regional, gender-based, and racial inequalities hinder equal access to education for all individuals. Although educational equity has gained greater prominence on the international agenda in recent years, challenges related to access to education at both regional and national levels still persist.

Educational equity not only refers to providing the same opportunities to all students, but also to the existence of a system that can respond to their diverse needs (Nachbauer & Kyriakides, 2020). Equity is viewed as the capacity of individuals to transform learning opportunities into achievements (Sen, 2005). In this context, the concepts of equality and equity are differentiated. Educational equity is addressed through two dimensions: inclusiveness and fairness. Inclusiveness refers to providing all students with high-quality learning opportunities, while fairness implies that educational outcomes are balanced across different student groups. While the meritocratic perspective attributes achievement to individual talents, skills, and efforts, research on educational effectiveness has shown that success is strongly influenced by factors such as socio-economic status, ethnicity, and gender. According to this view, even when equal opportunities are provided, similar outcomes may not be achieved (Nachbauer & Kyriakides, 2020).

An equitable education system provides students with the support and resources they need to reach their potential, regardless of their personal or social circumstances. By strengthening equity in education, it creates fair opportunities for students' future success. Many countries explicitly aim to improve access, quality, and equity in education. However, achieving these goals entails various challenges (OECD, 2025).

Access to education is a critical factor that affects individuals' entire lives, and inequality in this domain has various individual and societal consequences. OECD's PISA-based reports have revealed that socio-economically disadvantaged students perform lower than their more advantaged peers (OECD, 2025). Higher levels of education lead to better job opportunities and higher earnings (OECD, 2024). Therefore, access to education holds significant importance throughout an individual's life.

While students from low socio-economic backgrounds tend to perform worse, school composition is also a factor that influences achievement (McConney & Perry, 2010). Market-based school systems exacerbate educational inequality by increasing social segregation (Alegre & Ferrer, 2010). When students attribute classroom differences to individual characteristics, inequalities are perceived as legitimate, resulting in loss of motivation (Goudeau & Cimpian, 2021). Educational inequality reduces the likelihood of success for disadvantaged students (Agasisti et al., 2017). Furthermore, such inequalities particularly lead to university failure among financially and health-wise disadvantaged students (Li & Carroll, 2020). In low socio-economic schools, students' mathematics performance is negatively affected, and their interest in science declines (McConney & Perry, 2010; Zhao et al., 2012). Inadequate learning resources cause significant declines in achievement, especially among poor groups and minorities (Lee, 2012). These studies demonstrate that educational inequalities have effects in many areas-individual, societal, economic, and psychological. Considering the impacts of inequality in education and related statistical data, the need for more effective policies becomes clearly evident.

UNESCO data show that the proportion of primary school-aged children not attending school reaches as high as 44% in Sub-Saharan Africa, while this rate drops to as low as 3% in Central and Southern Asia. On a national level, this figure climbs to 78% in Somalia. In terms of higher education participation, the percentage of individuals aged 18–22 enrolled in tertiary education is 71% in Belgium, compared to just 1% in Madagascar. The average years of schooling for individuals aged 20–24 is 13.5 years in the United Kingdom but drops to 3 years in Mali. In Haiti, 19% of 19-year-olds are still in primary school due to delayed enrolment. In low-income countries, 80% of children in rural areas and 91% in urban areas are able to transition to lower secondary education. However, in Sub-Saharan Africa, only 13% of the poorest population completes lower secondary school (UNESCO, 2025b). This landscape clearly demonstrates that access to education remains a challenge at local, regional, national, and socio-economic levels.

In today's world, where educational inequality has reached dramatic levels, effectively monitoring educational equity is crucial to minimizing its impact. For this reason, international organisations are placing increased emphasis on tracking equity in education. There is a growing effort to develop various reports, indicators, and databases to serve this purpose. Through its PISA assessments, the OECD evaluates performance disparities between schools and focuses on issues such as access to resources, teacher effectiveness, and digital inequalities (OECD, 2022). The UNESCO also monitors the status of equity and inclusion in education within the framework of SDG 4 Quality Education through its Global Education Monitoring Reports. These reports address equal opportunities and access for marginalized groups (UNESCO, 2025a). UNICEF, on the other hand, examines dimensions of equity such as access to early childhood education, girls' education, and education in conflict zones, particularly focusing

on fairness and equal opportunity among children (UNICEF, 2018). In addition, the United Nations Development Programme (UNDP) and the UN Statistics Division emphasise that education is one of the driving forces in reducing inequality. The latest Sustainable Development Goals report highlights that the global education trend is not improving. Serious declines in mathematics and reading performance and stagnation in pre-school enrolment are prominent problem areas. Furthermore, it has been emphasised that the lack of legal regulations for the pre-school period is particularly detrimental to disadvantaged students (UNSD, 2025a). Moreover, local research has examined how global goals align with the national context. A comprehensive report within the Global Schools Programme, examining the extent to which Türkiye's education system is aligned with the principles of Education for Sustainable Development (ESD) and Global Citizenship Education (GCED), aimed to identify ways to integrate global goals into the local curriculum. The report's findings revealed that SDG 4 is one of the least addressed topics in the Turkish education curriculum. In fact, some subjects' curricula contained no direct reference to SDG 4. This report showed that the curriculum has significant gaps in terms of inclusivity and promoting lifelong learning opportunities, and that this situation is a major obstacle to achieving ESD goals (Öztürk et al., 2021).

One of the key approaches to monitoring educational equity and informing policy implementation is through its measurement. Previous studies have used various statistical methods to address educational equity, including multilevel analyses and the Hutchens segregation index (Alegre & Ferrer, 2010), three-level hierarchical models (Hansen & Gustafsson, 2019), multilevel regression (Gustafsson et al., 2018; Zhao et al., 2012), panel data analysis (Agasisti et al., 2017), geographic accessibility models and optimization algorithms (Han et al., 2023), and OLS regression slopes (Fischer et al., 2014). In earlier studies, educational equity or inequality has been examined at the student level (Goudeau & Cimpian, 2021; Li & Carroll, 2020), student and school level (McConney & Perry, 2010), regional level (Han et al., 2023), national level (Lee, 2012), and international level (Alegre & Ferrer, 2010; Kyriakides et al., 2019; Tan & Hew, 2017). These studies have employed data such as PISA (Agasisti et al., 2017; Alegre & Ferrer, 2010), National Assessment of Educational Progress [NAEP] (Lee, 2012), the proportion of resilient students (those who succeed despite disadvantage) (Agasisti et al., 2017), school accessibility, socio-economic factors, rural/urban distinctions (Han et al., 2023), and mathematics achievement by socio-economic status (Nachbauer & Kyriakides, 2020). Each of these methods reflects different perspectives on measuring inequality in education. However, these approaches generally focus on the relationships between specific variables. Consequently, they fall short of addressing education systems from a multidimensional perspective. This situation can be considered a limitation of existing methodologies. To overcome this limitation, multi-criteria decision-making (MCDM) methods offer an innovative methodology for tackling multi-criteria and multi-alternative problems. Consequently, MCDM methods provide a new perspective for addressing equality in education at the macro level.

Most research on educational equity tends to focus on micro – and meso-levels, such as students, schools, regions, or national contexts. This has led to a gap in the literature regarding cross-country comparative analyses. While many studies discuss the causes and consequences of educational inequality (Ainscow, 2016; Artiles, 2011), few directly compare countries in terms of educational

equity. Moreover, there is a methodological gap in enabling cross-country comparisons of educational equity. Some studies in the literature have addressed equity using international data. For example, Tan and Hew (2017) examined student achievement in 22 developed countries using PISA data, focusing on access to information technologies. Kyriakides et al. (2019) explored the relationship between academic achievement and socio-economic status using data from four countries (Greek Cypriot administration of Southern Cyprus, the United Kingdom, Greece, and Ireland) to enhance the effectiveness of schools in socially disadvantaged areas. However, these studies do not directly compare countries in terms of educational equity. One key reason for this is the lack of a methodology capable of measuring educational equity at the systemic level.

This study aimed to weight the criteria for educational equity and rank countries accordingly. To achieve this, a multidimensional and comprehensive measurement methodology based on multi-criteria decision-making (MCDM) methods was proposed. The study makes three significant contributions to the literature: First, it introduces a methodology that enables cross-country analysis of educational equity, addressing a major gap in previous research. Although educational equity has been examined at the micro level, no macro-level analysis had been conducted before. Second, this study allows countries to assess their performance in educational equity in comparison to other nations. It also assists in the structuring of education policies by analyzing countries' strengths and weaknesses. Lastly, the study determines the level of importance of the indicators used to measure educational equity. Importance level refers to the statistical weight assigned to each indicator-the greater the weight, the more significant the indicator. This analysis provides a framework for countries seeking to enhance educational equity.

METHOD

In this study, Multi-Criteria Decision-Making (MCDM) methods were employed to weight educational equity indicators and rank countries. MCDM is a mathematical methodology that combines technical knowledge and values of decision-makers to find solutions to specific problems (Kulkarni, 2022). It encompasses a set of methodologies that use mathematical tools to assist decision-makers and is considered a part of operations research (Zavadskas et al., 2014). MCDM methods are used to address complex problems involving conflicting objectives, multiple alternatives, and diverse types of data (Wang et al., 2009). These methods are applied to weight criteria, identify alternatives, classify options, and establish rankings (Ho, 2008). MCDM has found widespread application in educational research as well, including performance evaluation, quality assessment in education, the selection of educational technologies, and the selection of students, schools, and personnel (Maral & Özdemir, 2025).

The use of MCDM in this study is directly related to the nature of the problem. Educational equity encompasses not only student achievement but also access, resource allocation, and teacher quality, among other indicators. MCDM is effective in addressing this multi-criteria structure. Second, MCDM methods allow criteria to be weighted relative to one another, which provides critical insights for setting policy priorities. Third, the aim of this study was to rank 51 countries

based on educational equity. MCDM is suitable for solving such problems involving multiple criteria and numerous alternatives. In this study, the MEREC method was used to weight the educational equity indicators, and the MABAC method was employed to rank the countries. Ethics committee approval for this study was obtained from National Defence University Ethics Committee (Date: 23.07.2025, Number: E-35592990-050.04-5037895).

MEREC Method

The MEREC method is a method developed by Keshavarz-Ghorabaee et al. (2021) and used for the objective weighting of criteria in a MCDM problem. In this method, the removal effect of each criterion on the overall performance of the alternatives is used to determine the weights of the criteria. In this study, the MEREC method was used to determine the objective weights of the criteria.

MABAC Method

The MABAC (Multi-Attributive Border Approximation Area Comparison) method is a method used to rank alternatives in MCDM problems. MABAC evaluates alternatives based on their distance from the defined border area for each criterion. A positive total distance for each alternative indicates the ideal alternative, while a negative total distance indicates a weaker alternative (Pamucar & Cirovic, 2015). In this study, the MABAC method was used to rank countries according to their performance in educational equality.

Data Collection and Criteria

Various criteria have been used in the literature to evaluate educational equity (Agasisti et al., 2017; Alegre & Ferrer, 2010; Goudeau & Cimpian, 2021; Li & Carroll, 2020; McConney & Perry, 2010). However, determining the set of criteria to assess educational equity is a challenging process because previous studies have shown that there is no single superior indicator for educational equity. Each indicator has its unique advantages and disadvantages. Therefore, it is important to use different indicators appropriately according to the context (Nachbauer & Kyriakides, 2020).

In this study, the aim was to include as many criteria as possible in the analysis to comprehensively assess countries' educational equity. This is because single indicators can be incomplete or misleading and do not allow for a fair comparison. Including diverse criteria enables a simultaneous evaluation of countries' strengths and weaknesses, thus facilitating a more accurate and equitable comparison. Some countries may perform better in certain indicators while performing lower in others. A limited number of criteria can provide unfair advantages to certain countries. Additionally, a rich set of criteria produces reliable results that policymakers in countries can trust. This approach also better reflects the multidimensional nature of educational equity.

For evaluating countries based on educational equity, this study used 35 indicators and 109 sub-indicators grouped under 18 subcategories within 7 policy areas defined by the OECD. The general framework of the policy areas and indicators is presented in Table 1. In the subsequent sections of the paper, all indicators are referred to as criteria.

Table 1.
Indicators of Equality in Education

Code	Policy Area	Subcode	Subtitle	Indicator	Direction
A	Enabling all learners to develop the skills to thrive in equitable and inclusive societies	A1	Foundational/ general skills at different periods of life	Score in reading at grade 4 (2016)	Benefit (+)
				Score in reading at age 15 (2018)	Benefit (+)
				Score in literacy (2012/2014/2017)	Benefit (+)
				Score in maths at grade 4 (2016)	Benefit (+)
				Maths score at age 15 (2018)	Benefit (+)
				Score in numeracy (2012/2014/2017)	Benefit (+)
		A2	Skills to thrive in a digital world	Index of knowledge of reading strategies for assessing the credibility of sources (2018)	Benefit (+)
		A3	Social and emotional skills	The proportion of students with a growth-oriented mindset (2018)	Benefit (+)
				Index of self-efficacy (2018)	Benefit (+)
B	Ensuring that education contributes to equitable economic and social outcomes	B1	Labour market outcomes	Employment rates, by age groups and education attainment (2021)	Benefit (+)
				Gender gaps (men-women) in employment rates, by educational attainment (2021)	Cost (-)
		B2	Earnings advantages from education	Relative earnings of 25-64 year-olds with income from employment (full-time full-year workers), 2020	Benefit (+)
				Women's earnings as a percentage of men's earnings (2020)	Benefit (+)
		B3	Social outcomes	Remaining life expectancy at age 30, by educational attainment (2017)	Benefit (+)
				Index of awareness of global issues, by student characteristics (2018)	Benefit (+)
C	Raising educational outcomes through more equitable education opportunities	C1	Leaving no one behind	Proportion of 18-24 year-olds neither in education nor in employment (NEET), 2021	Cost (-)
				Percentage of adults who have attained tertiary education, by educational attainment of their parents (2012)	Benefit (+)
		C2	Access and equitable pathways to lifelong learning	Share of women graduated from upper secondary vocational education or new entrants in STEM and Health and Welfare fields at tertiary level of education (2020)	Benefit (+)
				Percentage of 25-64 year-olds reporting wanting to participate in education and training but could not because of financial cost (2016)	Cost (-)

D	Investing in the early years	D1	Investing in the early years: pre-primary education	Enrolment rates in early childhood education and care (ECEC) and primary education, by age groups (2020)	Benefit (+)
				Share of private expenditure in the early years of education (2018)	Cost (-)
		D2	Investing in the early years: primary education	Expenditure per student in primary and secondary education (2019)	Benefit (+)
				Ratios of per student expenditure in primary, secondary and tertiary education (2019)	Benefit (+)
E	Empowering teachers and school leaders to support equity in and through education	E1	Teachers	Percentage of students in schools whose principal agreed that teachers have the necessary skills to integrate digital devices in instruction (2018)	Benefit (+)
				Percentage of lower secondary teachers for whom the following topics were included in their professional development activities (2018)	Benefit (+)
		E2	School leaders	Percentage of lower secondary school leaders reporting professional development needs for promoting diversity and equity (2018)	Cost (-)
F	Aligning resources with learners' needs	F1	Equitable allocation of expenditure between advantaged and disadvantaged students/schools	Index of shortage of education staff, by schools' socio-economic profile (2018)	Cost (-)
				Index of shortage of educational material, by schools' socio-economic profile (2018)	Cost (-)
		F2	Allocation of teachers in disadvantaged schools	Percentage of lower secondary teachers with more than 10 years of work experience as a teacher by concentration of students from a low socio-economic background (2018)	Benefit (+)
			Resources for a digital world	Percentage of students who reported having access to the Internet and a computer that they can use for schoolwork at home, by school socio-economic profile (2018)	Benefit (+)

G	Enabling an inclusive school environment	G1	School environment	Percentage of 15-year-old students who reported being exposed to any type of bullying at least a few times a month, by students' socio-economic status (2018)	Cost (-)
				Index of sense of belonging at school, by students' socio-economic status (2018)	Benefit (+)
		G2	School community	Percentage of students' parents who discussed their child's progress with a teacher on their own initiative, by students' socio-economic status (2018)	Benefit (+)
				Percentage of students who are satisfied with life, by students' socio-economic status (2018)	Benefit (+)
		G3	Student and teacher well-being	Percentage of teachers who "agree" or "strongly agree" with the statement "I would like to change to another school if that were possible", by school characteristics (2018)	Cost (-)

The data for this study were obtained from the OECD's Education Equity database (OECD, 2025). These indicators are based on the education equity indicator framework developed within the scope of the Education and Skills Ministerial Meeting held by the OECD on December 7–8, 2022. The indicator framework was created to evaluate equity in the opportunities offered by various education systems to individuals and the transformation of these opportunities into outcomes. Grounded in a lifelong learning perspective, the panel includes a comprehensive dataset covering educational, social, and economic outcomes. The data primarily rely on international programs such as PISA, PIAAC, TALIS, and INES, as well as OECD databases and data from other international organisations.

FINDINGS

Findings regarding criterion weights

The MEREC method, one of the multi-criteria decision-making techniques, was used to weight the educational equity criteria. This method enabled the weighting of both the seven policy areas and the 17 sub-criteria. Weighting refers to the statistical representation of the relative importance of criteria compared to one another. Figure 1 illustrates the importance levels of the main policy headings and criteria.

Figure 1.
Weight Values of Equality Criteria in Education

The findings revealed that Policy G (Enabling an Inclusive School Environment) holds the highest weight (weight (w) = 0.18). This policy area emphasises the critical role of not only physical and structural aspects but also the psychological dimension in educational equity. Moreover, it demonstrates that equity in education is strongly linked to psychosocial well-being, a sense of belonging, and the school climate. Within this policy area, the criteria include school environment (w = 0.1105), school community (w = 0.0437), and student and teacher well-being (w = 0.0282). The highest weight within this area belongs to the school environment criterion, underscoring the crucial role that providing students with a safe and supportive learning environment plays in either fostering or hindering educational equity.

The second highest weighted policy goal is B (Ensuring that Education Contributes to Equitable Economic and Social Outcomes) with a weight of 0.1666. This goal encompasses employment rates by educational attainment, employment and gender disparities across age groups, income inequalities, life expectancy by education level, and global awareness indices. Its high importance indicates that education systems should prioritise not only personal development but also long-term economic and social outcomes such as employment, income levels, and social welfare. Under Policy B, the social outcomes criterion carries a higher weight compared to the other two criteria, highlighting

that educational equity is influenced not only by economic factors but also by health, social welfare, awareness, and civic participation.

Policy D (Investing in the Early Years) ranks third with a weight of 0.1548, indicating that investments in early childhood are critically important for educational equity. Given the significance of the quality and opportunities provided in early education on individuals' economic, academic, and social outcomes, investment in early childhood education emerges as a strong factor in promoting equity. Among the two criteria within this area, D1 (Investing in the Early Years: Pre-primary Education, w = 0.0956) holds the highest weight. This finding highlights not only the necessity of investment but also the importance of initiating these investments as early as possible to enhance equity.

The fourth highest weighted Policy is A (Enabling All Learners to Develop the Skills to Thrive in Equitable and Inclusive Societies) with a weight of 0.1509. This policy emphasises equal access to fundamental, digital, academic, and socio-emotional skills. These goals cover knowledge and skills such as academic achievement, digital literacy, and self-efficacy. Among the three criteria under this policy, A2 (Skills to Thrive in a Digital World, w = 0.0767) carries the greatest importance. This finding points to the necessity of placing greater emphasis on digital skills, which have become increasingly vital in today's world, alongside basic skills. Particularly, digital literacy has become one of the most essential competencies to be provided to individuals today.

Policy E (Empowering Teachers and School Leaders to Support Equity In and Through Education, w = 0.1369) ranks fifth in terms of importance. This policy area emphasises the critical role of teachers and school leaders in ensuring educational equity. While focusing on teachers' competencies and skills, it also highlights the awareness and professional development needs of school leaders with respect to educational equity. The findings reveal that the criterion related to school leadership (w = 0.1097) holds significantly higher importance than the criterion related to teachers (w = 0.0271). This indicates that leaders play a crucial role in efforts aimed at promoting educational equity. The awareness practices, and vision of school leaders regarding equity are prominent factors within schools. Moreover, school leaders' provision of an environment that supports teachers' technological competencies and pedagogical development plays an important role in enabling disadvantaged students' access to opportunities.

Ranking of Countries Based on Educational Equity

To rank countries according to their status in educational equity, the weights obtained from the MEREC method were applied to 35 indicators and 109 sub-indicators organised under 18 subcategories within 7 policy areas. The MABAC method was then used to rank the countries. Countries were ranked both in terms of individual policy areas and overall educational equity. In the ranking involving 51 countries, three performance groups were formed: countries ranked 1 to 17 were classified as high performers, those ranked 18 to 34 as medium performers, and those ranked 35 to 51 as low performers. The area-based and overall rankings of countries are presented in Figure 2.

Figure 2.

Ranking of Countries Based on Educational Equity

	A	B	C	D	E	F	G	General Rank
Spain	9	15	35	38	11	19	1	1
Austria	4	21	42	10	41	21	2	2
Denmark	1	20	4	13	50	2	8	3
Germany	6	8	33	7	35	38	6	4
Norway	30	12	14	4	44	8	3	5
Netherlands	19	11	7	5	43	4	7	6
Croatia	14	4	23	23	3	35	11	7
Lithuania	5	1	50	33	12	9	32	8
Portugal	24	2	20	42	42	20	9	9
Switzerland	18	34	30	44	21	3	5	10
Canada	7	5	2	15	27	13	39	11
Luxembourg	34	18	15	1	17	7	12	12
Finland	11	19	3	8	49	12	19	13
Sweden	28	17	11	3	38	10	18	14
Belgium	20	22	13	2	40	29	14	15
Scotland	27	6	29	29	31	25	23	16
Greece	21	3	41	48	33	41	17	17
Iceland	31	37	10	9	47	1	10	18
Ireland	8	9	8	12	39	30	38	19
Australia	10	7	6	39	45	16	43	20
Northern Ireland	22	27	18	26	30	24	22	21
China	25	24	22	21	28	22	20	22
United States	3	30	17	14	36	18	45	23
Costa Rica	2	39	44	22	34	49	13	24
England	23	25	12	24	48	28	24	25
Estonia	13	28	16	30	25	37	34	26
New Zealand	15	29	1	18	23	26	46	27
Hungary	29	31	37	36	22	33	16	28
France	39	10	19	6	51	11	29	29
United Kingdom	17	16	34	19	19	15	44	30
Korea	44	45	5	17	1	17	4	31
Slovenia	37	23	36	34	24	6	31	32
Italy	38	36	45	40	8	40	15	33
Poland	41	13	32	41	18	5	47	34
South Africa	40	32	51	47	4	27	28	35
Türkiye	12	35	47	51	16	42	41	36
India	26	46	24	37	29	23	21	37
Mexico	35	40	31	45	26	45	25	38
Peru	45	14	26	27	32	47	35	39
Japan	48	26	9	31	15	46	30	40
Romania	33	48	27	28	5	39	27	41
Chile	36	41	40	49	20	34	33	42
Colombia	16	43	48	50	2	50	36	43
Latvia	42	42	39	16	7	32	48	44
Bulgaria	46	38	21	20	10	14	51	45
Saudi Arabia	32	50	28	46	6	48	26	46
Czech Republic	47	33	43	11	46	36	50	47
Argentina	43	49	38	32	37	44	37	48
Slovak Republic	49	44	46	43	14	31	49	49
Brazil	50	47	49	35	9	43	42	50
Indonesia	51	51	25	25	13	51	40	51

According to the findings, Spain, Austria, Denmark, Germany, and Norway rank in the top five overall. These countries have ranked high in educational equity with consistent and sustainable performance across multiple policy areas, not just in specific fields. However, even the countries in

the top five have areas of low performance. Spain, despite being ranked first, has low performance in two areas. Similarly, Austria, ranked second, has shown low performance in two areas. European countries generally show higher performance. Developed economies such as China, the USA, and Japan did not show high performance in the overall ranking. Indonesia, Brazil, Slovakia, and Argentina ranked at the bottom, showing low performance in many dimensions of educational equity.

In Policy A, Denmark, Costa Rica, the United States, Austria, and Lithuania are among the top five countries. Although Costa Rica and the USA are among the medium-performing countries, they rank among the more equitable countries in terms of developing students' basic and digital skills. In Policy B, Lithuania, Portugal, Greece, Croatia, and Canada are among the top five countries. These countries are already among the high-performing countries. No medium or low-performing countries are found among the top five in Policy B. In Policy C, New Zealand, Canada, Finland, Denmark, and Korea are among the top five. The high performance of Scandinavian countries in this area is noteworthy. This indicates that lifelong learning, equal opportunity, and social mobility are higher in these countries.

In Policy D, Luxembourg, Belgium, Sweden, Norway, and the Netherlands are among the top five. These countries have stood out in this area by investing more in early childhood education, thus advancing educational equity. In Policy E, Korea, Colombia, Croatia, South Africa, and Romania are among the top five countries. Colombia, South Africa, and Romania perform poorly overall, but these countries have shown high performance in supporting teachers and school leaders in promoting equity. Particularly, despite Finland and Denmark ranking high overall, their low performance in Policy E is noteworthy. In Policy F, Iceland, Denmark, Switzerland, the Netherlands, and Poland are among the top five. These countries perform well in the effective allocation of resources favoring disadvantaged groups. In Policy G, Spain, Austria, Norway, Korea, and Switzerland are among the top five countries. These countries have achieved high levels of equity in student belonging, protection from bullying, and school-family interaction.

The findings show that countries have strengths and weaknesses in different policy areas. Moreover, educational equity is not a one-dimensional structure but rather relates to multiple policy areas, and some countries, even if performing highly, have areas where they perform poorly. This situation indicates that there are still gaps in countries' development and implementation of policies related to educational equity.

Validation Analysis

To test the validity and reliability of the measurement model presented in this study, a correlation analysis was conducted using a globally recognised external criterion. The ranking results of this study were compared with the index scores of the World Bank's Learning Poverty (LP) (World Bank, 2022). Learning Poverty represents the proportion of children aged 10 and under who cannot read and understand a basic text and is considered a critical indicator of educational deprivation and inequality.

As the data were at the ranking level, the analysis was performed using Spearman's rank correlation coefficient. The analysis revealed a statistically significant and positive relationship between the ranking findings presented in this study and the Learning Poverty scores (rs=0.450, $p < 0.01$). This finding confirms that the results of the model presented in this study are consistent with Learning Poverty and that the proposed methodology is a reliable and valid tool for educational equality.

Sensitivity Analysis

A sensitivity analysis was conducted to test the sensitivity and stability of the methodology presented in this study. In this study, rankings were generated using the MABAC method based on the objective weights obtained using the MEREC method. However, it is important to test the sensitivity of the model when the criterion weights change. In this model with 109 criteria, the analysis was repeated using the MABAC method by assigning equal weights to all criteria, and new rankings were produced. These new ranking values were compared with the original ranking values using correlation analysis.

As a result of the analysis, the Spearman rank correlation coefficient (r_s) was calculated as 0.86, and the result was found to be statistically significant at the $p < 0.001$ level. Therefore, this result shows that this model is not overly sensitive and is a model sensitive to normative preferences.

CONCLUSION, DISCUSSION AND RECOMMENDATIONS

This study used multi-criteria decision-making (MCDM) methods to weight criteria based on 109 OECD educational equity indicators and ranked countries according to educational equity across policy areas. The study revealed countries' strengths and weaknesses by using a criteria set that reflects the multidimensional nature of educational equity.

The findings showed that policies aimed at ensuring educational equity should consider not only resources but also psychosocial, economic, pedagogical, and sociological factors together. Policy G (enabling an inclusive school environment) emerged as the policy area with the highest level of importance. This highlights the increasing significance of psychosocial factors in recent discussions on educational equity. Schools having a safe, supportive, and inclusive climate plays a critical role not only in students' academic success but also in developing feelings of belonging, self-efficacy, and well-being (Kutsyuruba et al., 2015; McNeely et al., 2002; Steinmayr et al., 2018; Zysberg & Schwabsky, 2021). This indicates that education policies should effectively address not only academic and cognitive development but also the psychosocial structure. The SDG 2025 report emphasises that most countries are far from achieving targets related to access, completion and learning outcomes. Inequalities remain significant, with 36 per cent of children and young people in low-income countries out of school, compared to just 3 per cent in high-income countries. Similarly, gender inequalities persist. Forty per cent of countries have gender inequality in primary school completion rates (UNSD, 2025b). All these findings underscore the growing importance of Policy G. Policy G focuses on the psychosocial environment of schools, such as bullying, school belonging, parental monitoring of students, student life satisfaction, and students wishing to change schools. At

this point, Policy G can be seen as a strategic intervention area that could reverse the problem areas in the current SDG report. Furthermore, the stagnation and decline in many indicators in the SDG reports are interrelated with Policy G, which emphasises the psychosocial environment of schools. This is because the negative situation highlighted for SDG 4 has the potential to deeply affect the positive school climate in schools. Prioritising the metrics emphasised in this study within the scope of Policy Area G, such as the data initiative, student life satisfaction, and a positive school climate, has the potential to mitigate educational inequality by significantly fostering student participation. Consequently, Policy G is a driving factor for resolving the macro inequalities highlighted in the SDG 2025 report at the school level and ensuring sustainable quality education.

The fact that Policy B (economic and social outcomes) ranks second indicates that education is a societal tool beyond personal gains. Higher education levels lead to better job opportunities, higher earnings, and better psychosocial well-being (Hanushek & Woessmann, 2008; Psacharopoulos & Patrinos, 2018). This finding suggests that educational equity should be evaluated not only in terms of academic achievement or school equality but also considering its effects on post-school economic and social life. Considering the impact of participation and educational attainment on an individual's future life, every step taken toward educational equity represents an effort not only for today but also for equality in individuals' future lives. Therefore, education policies should concern not only teaching and curriculum but also transitions to the labour market, lifelong learning, and the cultivation of qualified and competent individuals.

The findings revealed that investment in early childhood education (Policy D) holds a high level of importance. This finding suggests that steps toward educational equity should start from the preschool period. Studies have shown that education provided at an early age leads to positive outcomes in the future (McCoy et al., 2017). Therefore, investments related to educational equity should begin in the preschool period, considering that gains obtained here shape an individual's future life. Moreover, investments in early childhood education may have a ripple effect, potentially influencing policy goals in other areas. Early childhood (0-5 years) is a critical period during which more than 85% of brain development occurs. Children who receive quality pre-school education at this age start primary school with stronger social skills, vocabulary and mathematical abilities. Children who receive early education achieve higher success in reading and mathematics. Children who participate in education during this period have lower dropout and retention rates (UNICEF, 2019). According to PISA 2022 data, it has been found that students who have received pre-school education in Türkiye perform better in mathematics than their peers (TEDMEM, 2025a). Therefore, quality early education plays a critical role in shaping children's futures and laying a solid foundation for lifelong learning (UNESCO, 2024). The effects of early childhood education are not limited to this. Education during this period also affects individuals' economic status in adulthood. Children who receive pre-school education have higher labour force participation rates in adulthood and greater earning potential (UNICEF, 2019). Studies have shown that the highest economic return among education levels is from investment in pre-school education (TEDMEM, 2025b). Therefore, quality early education helps disadvantaged children reduce developmental and academic gaps. owever, it

is not merely the availability of early education, but its quality that is critical here (UNICEF, 2019). Therefore, the findings of this study support global and national research reports.

The importance of Policy A (basic and digital skills) indicates that balancing the individual's competencies with the demands of modern era has become one of the fundamental needs of education policies. As digitalization and technology continually evolve, digital literacy has become a critical skill for individuals' access to information and social participation. However, problems persist regarding equal access to these resources. Just as in real life, social inequalities continue in the digital world as well (Van Deursen & Van Dijk, 2014). The disruptions to education caused by the COVID-19 pandemic have brought the issues of digital power and digital poverty further to the fore (Ferris et al., 2022). The critical role played by educational technologies in education is further increasing the achievement gap between students, and at the same time, this digital inequality is creating a new disadvantaged group of students (Arar & Mifsud, 2024). Today, digital inequality has transformed with new technologies, shifting the focus from access-oriented discussions to areas such as data production and control over data (Lutz, 2019). Inequality is no longer just a problem of access to devices and the internet; instead, it has shifted to areas such as digital skills, areas of use, parental support, and coping with digital risks (Perera et al., 2023). While in previous years there was an approach based on those who had access to the internet and those who did not, a digital inclusion approach focusing on skills, security, and content has since come to the fore. However, today, the concept of digital equality is at the forefront, emphasising that it is necessary to go beyond simply owning technological tools and that the main goal is for children to benefit equally from digital opportunities, regardless of their background (UNICEF, 2022). Children from families with a high socio-economic status use technology for learning and developing opportunities, while children from families with a low socio-economic status use it for entertainment and passive consumption. This situation deepens digital inequality. Furthermore, disadvantaged children are more exposed to digital risks (Perera et al., 2023). Factors such as financing, education, and infrastructure underlie these risks (Donaghy, 2021). In addition, cultural factors and individual characteristics are also among the causes of digital inequality. It is emphasised that the solution to digital inequality requires not only infrastructure but also a social approach (UNICEF, 2022). Therefore, education policies should be structured not only to support academic success but also to enable students to adapt to the requirements of the era.

The findings also revealed that Policy E (teacher and school leadership) holds a high level of importance. This shows that teachers and school leaders are not only conveyors of knowledge but also representatives and driving forces of social justice. Especially, school leaders adopting an equity-focused approach play a significant role in constructing a culture of equity in schools (Brady et al., 2024; Dhakal, 2024). Therefore, integrating teachers and leaders into this process and acknowledging their critical role is important for ensuring educational equity.

The second important finding of this study is the ranking of countries according to educational equity. This ranking includes both the seven policy areas and the overall ranking. The obtained results help countries see their strengths and weaknesses, and develop policies compatible with these outcomes. The findings demonstrated that educational equity performance should be assessed not

as a single-dimensional structure but by considering multiple policy areas. Educational equality is generally measured using a single criterion, such as participation in education. However, using multiple indicators to measure educational equality provides more methodologically credible results and reduces dependence on a single source. One of the important findings of this study is directed towards this. Second, assessing educational equality encompasses a wide range of factors, from the student's socio-economic background to access to technology. This comprehensive structure of educational equality allows us to understand the broader and deeper relationships behind inequality rather than attributing it solely to the student and their family. Under SDG 4, education must not only be provided but also be inclusive and of high quality. A multi-criteria assessment approach makes the human and social dimensions of education measurable by including quantitative and qualitative data in the analysis. Furthermore, such an approach is also instructive for policymakers. A multi-criteria assessment enables policymakers to identify areas for intervention. However, the critical point here is education equality data. Research generally uses existing data and does not have the capacity to produce global data to measure equality in education. Therefore, the data of international organisations is an important data provider for many studies. Although researchers' reliance solely on this data is seen as a limitation, the increasingly developed global data is still considered an important resource for measuring equality.

In the overall ranking, Spain, Austria, Denmark, Germany, Norway, and the Netherlands are at the top, while Indonesia, Brazil, Slovakia, Argentina, and the Czechia are at the bottom. The sole factor behind this outcome is not the wealth of the countries. The United States' full-time equivalent (FTE) expenditure per student in primary and secondary education ($15,500) is higher than the OECD average ($11,300). Luxembourg spends $25,000, Norway $18,000, Korea $16,000, Iceland $15,200, France $12,200, and Spain $9,800 (NCES, 2023). Generally, countries with higher expenditures rank higher in educational equity, but expenditure alone is not an explanatory factor. For example, Spain ranks first overall despite spending well below the OECD average. Similarly, the USA ranks 23rd overall despite high expenditure. This situation indicates that the distribution and quality of investment are more important than the amount spent on education.

Northern European countries (Norway, Denmark, Finland, Sweden) generally perform better and demonstrate strong performance especially in policy areas A, C, and G. This can be seen as a reflection of the inclusive welfare state model. In these countries, education is associated not only with academic outcomes but also with multidimensional goals such as equal opportunities and individual and societal well-being. However, Southern and Eastern European countries are among the low-performing countries. Countries like Romania, Bulgaria, Slovakia, and the Czechia rank lower. This indicates that education in these countries struggles with structural and political obstacles, resource shortages, and unequal practices. Similarly, Latin American countries such as Brazil, Colombia, and Argentina have shown low performance in the ranking. This can be interpreted as a direct reflection of social inequalities on education in these countries. The high performance of Northern European countries in educational equality is explained by the absence of segregation at an early age and comprehensive school structures (Campos et al., 2025). This success is not homogeneous across countries, with PISA analyses revealing a significant increase in the gap

between immigrant and native students, particularly in Sweden (Frønes et al., 2021). Therefore, high performance does not entirely eliminate educational inequalities. It has been demonstrated that Denmark has reduced the strong influence of socio-economic status on student achievement and improved educational equality (OECD, 2018). This shows that equality in education can be strengthened through policy implementation. Low performance in Eastern European countries is consistent with double disadvantage and the gap between rural and urban areas. The concentration of students with low socio-economic status in schools of similar socio-economic levels in Romania and Macedonia doubles the pressure on student achievement (Caro & Mirazchiyski, 2012). UNICEF (2013) emphasises structural inequality by leaving disadvantaged schools with fewer resources. In Latin America, the source of educational inequality is seen as segregation between schools. The fact that a significant portion of the variance in student achievement is explained by the socio-economic status of the school (Duarte et al., 2010) and the learning penalty in state schools (Fernández et al., 2024) reveals the institutional dimensions of inequality. Spain ranks as the country with the highest performance in this study. However, the Spanish example shows that equality does not necessarily mean consistently high performance; in some cases, it is achieved through a reduction in variance (Martínez García et al., 2021).

Countries like Iceland, Ireland, Australia, and South Korea rank among high performers in at least four of the seven policy areas but are in the middle range in the overall ranking. This finding shows that strong performance in certain areas alone is insufficient to ensure educational equity. The fact that these countries perform poorly in some areas suggests that some elements of their education systems operate inconsistently with others. This fragmented policy approach acts as an obstacle to achieving educational equity. These findings emphasise the critical role of prioritising education policies and maintaining balance among areas. It is clear that sustainable educational equity requires attention not only to economic outcomes but also to the psychosocial environment.

To validate the methodology presented in this study, a comparison was made with World Bank Learning Poverty (LP) data. The findings revealed that the rankings in this study have a significant and positive correlation with the LP data. This finding demonstrates that the comprehensive educational equity structure captured by the MCDM approach reflects broader global educational disadvantage patterns. LP is widely used as a fundamental indicator, particularly because it captures early-stage inequalities. The meaningful positive relationship in this study reveals that countries positioned as more equitable also exhibit lower learning deprivation. This alignment with the established global indicator strengthens the validity of the proposed methodology. In conclusion, the methodology presented in this study offers a comprehensive and policy-sensitive framework.

Practical Implications

The findings of this study offer various practical implications. First, equity policies are not one-dimensional but multidimensional in nature. This study, using an inclusive data set, has revealed countries' strengths and weaknesses. This actually reflects the multidimensional nature of educational equity. Equal educational opportunity is possible through the timely integration of various factors

such as school environment, teacher and school leader competencies, resource allocation, and early intervention.

This study identified the areas where countries are strong and weak. In an era where educational equity is becoming increasingly important, countries should assess these results and revise policies by focusing on their weaknesses. For example, Spain's policies on school climate and Finland's investments in early childhood education could serve as examples for other countries. Performance rankings based on educational equity provide valuable insights into where countries stand relative to others. The success of Northern European countries in specific areas of educational equity can serve as concrete targets or models for countries with lower performance. Second, educational equity is a multidimensional construct. Measuring educational equality with MCDM determines the importance level of equality criteria and identifies areas for the allocation of limited resources. The critical criteria dimensions revealed by this study indicate the areas where resources should be prioritised for allocation. In this study, the assessment of educational equality is not only a macro-level assessment but also reveals gaps in the sub-dimensions. A country may have high success in Policy A but lower success in Policy G. This situation provides important information that education equality policies and practices need to be concentrated in specific areas. This situation can also guide education policy decisions. Progress in individual areas alone is not sufficient to ensure educational equity. Therefore, to achieve higher performance, it is important to implement integrated policies at student, school, regional, and national levels and to apply these correctly. Progress made in certain areas may not reach the desired level in equity goals if not integrated with other parts of the system. Regular evaluation of implemented policies and examination of their effectiveness is especially critical. Rankings offer a more transparent monitoring approach based on concrete indicators. This practically necessitates the management of education policies in line with measurable social justice objectives.

Future Research Directions and Limitations

This study weighted countries' educational equity criteria and ranked countries according to their performance, but it has some limitations. First, the study provides a macro-level perspective on educational equity. However, in-depth examination of countries' existing policies and practices related to educational equity could be a subject for future research. The alignment between policy documents and implementation strategies regarding educational equity in countries can be explored. Especially, the educational equity policies of high-performing countries can be analyzed both theoretically and practically to enable cross-country comparisons.

The effects of educational expenditures can be examined not only at the macro level but also in detail at regional and school levels. In particular, empirical studies can investigate the relationships between resource allocation, school leadership, teacher quality, academic outcomes, and equity outcomes in disadvantaged regions.

Digital skills and access to digital resources are gaining increasing importance today. However, digitalization may create a new area of inequality. Future research on digital inequality can guide

upcoming educational policies. According to the findings, Policy G (Enabling an inclusive school environment) is a highly important criterion. This indicates that educational equity includes not only structural but also psychosocial factors. In this regard, the effects of student well-being, school climate, bullying, and student behavior on equity can be supported with qualitative research.

Since this study is based on cross-sectional data, it reflects countries' status at a specific point in time. Future studies should examine trends in educational equity rankings and the impact of digital transformation on these trends. This study is based on a rich OECD dataset. A similar study can be conducted using data from UNESCO's educational equity database, and the results of the two studies can be compared. Furthermore, besides the MCDM methods used in this study, there are different MCDM methods that can be applied for similar purposes. Future studies can compare results obtained by using alternative MCDM techniques. Also, in this study, criterion weights were determined objectively using the MEREC method based on existing data. Future research can use subjective weighting methods such as BWM, AHP, FUCOM, or SWARA, based on expert opinions, to conduct analyses.

Data Availability Statement: As the data from this study is confidential, it cannot be shared with third parties.

Use of Artificial Intelligence for Language and Writing Review: In this study, artificial intelligence tools were used for grammatical corrections.

Ethical Statement: This research was conducted with ethics committee approval granted by the Scientific Research and Publication Ethics Committee of the National Defense University, dated 04.07.2025 and numbered E-35592990-050.04-5037895.

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Eğitimde Eşitliği Ölçme: Ülkeler Arası Bir Analiz

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Giriş

Eğitimde eşitsizliğin dramatik boyutlara ulaştığı günümüzde bunu en aza indirmek için eğitimde eşitliğin etkili bir şekilde izlenmesi önem taşımaktadır. Bu nedenle uluslararası kuruluşlar tarafından eğitimde eşitliği izlemeye daha fazla vurgu yapılmaktadır. Eğitimde eşitliği izleme ve politika uygulamaları için önemli yollardan birisi de eğitimde eşitliği ölçmektir. Eğitimde eşitliğe ilişkin birçok çalışma genellikle öğrenciler, okullar, bölgeler ya da ulusal bağlam gibi mikro ve mezo düzeye odaklanmıştır. Bu durum literatürde ülkelerarası karşılaştırmalı analizler ile ilgili boşluğa yol açmıştır. Birçok çalışma eğitimde eşitsizliğin nedenlerini ve etkilerini tartışsa da (Ainscow, 2016; Artiles, 2011) ülkelerin doğrudan karşılaştırmalarını yapan çalışmalar oldukça sınırlıdır. Bunun yanında eğitimde eşitliğe yönelik ülkelerarası karşılaştırmaya olanak sağlayan bir metodolojik eksiklik söz konusudur.

Bu çalışma eğitimde eşitlik kriterlerini ağırlıklandırmayı ve ülkeleri sıralamayı amaçlamıştır. Bunun için çok kriterli karar verme yöntemleri ile çok boyutlu ve kapsamlı bir ölçme metodolojisi önerilmiştir. Bu çalışma literatüre üç önemli katkı sunmaktadır. Bunlardan birincisi eğitimde eşitlik açısından ülkelerarası bir analiz yapmaya imkan sağlayan bir metodoloji önermektedir. Bu, önceki çalışmalardaki önemli bir boşluğu doldurmaktadır. Her ne kadar mikro düzeyde eğitimde eşitlik ele alınmış olsa da makro düzeyde bir analiz daha önce yapılmamıştır. İkincisi bu çalışma ülkelerin, eğitimde eşitlik performansını diğer ülkelerle karşılaştırmalı olarak görmelerine imkan sağlamaktadır. Ayrıca ülkelerin güçlü ve zayıf yönlerini analiz ederek eğitim politikalarının yapılandırılmasına yardımcı olmaktadır. Son olarak bu çalışma eğitimde eşitlik göstergelerinin önem düzeyini belirlemektedir. Önem düzeyi, bir göstergenin istatistiksel olarak ağırlık değerini ifade eder. Bu değer ne kadar büyükse, o gösterge o derece önemlidir. Bu analiz eğitimde eşitliği daha yüksek seviyelere çıkarmak isteyen ülkeler için bir çerçeve sunmaktadır.

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Yöntem

Bu çalışmada eğitimde eşitlik göstergelerini ağırlıklandırmak ve ülkeleri sıralamak için çok kriterli karar verme yöntemleri (MCDM) kullanılmıştır. MCDM, karar vericilerin teknik bilgi ve değerlerini bir araya getirerek belirli bir problemin çözümünü bulmaya imkan veren matematiksel bir metodolojidir (Kulkarni, 2022).

Bu çalışmada MCDM yönteminin kullanılması problemin doğası ile doğrudan ilgilidir. Eğitimde eşitlik sadece öğrenci başarısı değil erişim, kaynak dağılımı, öğretmen niteliği gibi birçok göstergeyi içerir. MCDM bu çok kriterli yapıyı ele almada etkilidir. İkincisi MCDM yöntemleri kriterleri birbirlerine göreceli olarak ağırlıklandırabilir. Bu durum politika öncelikleri belirlemek için kritik bilgiler sunar. Üçüncüsü bu çalışmada 51 ülkenin eğitimde eşitliğe göre sıralanması amaçlanmıştır. Çok kriterli ve çok alternatifli bu problemin çözümünde MCDM etkili bir metodolojidir. Bu çalışmada eğitimde eşitlik kriterlerini ağırlıklandırmak için MEREC, ülkeleri sıralamak için MABAC yöntemi kullanılmıştır.

Bu çalışmada ülkelerin eğitimde eşitliğini en kapsamlı şekilde değerlendirmek için mümkün olan en fazla sayıda kriterin analize dahil edilmesi amaçlanmıştır. Çünkü tekil göstergeler eksik ya da yanıltıcı olmakla birlikte adil bir karşılaştırmaya imkan vermez. Farklı kriterlerin analize dahil edilmesi ülkelerin güçlü ve zayıf yönlerinin birlikte değerlendirilmesini sağladığı için daha doğru ve adil bir karşılaştırmaya imkan sağlar. Bazı ülkeler bazı göstergelerde daha iyi performans gösterirken, diğerlerinde daha düşük performans gösterebilir. Sınırlı sayıdaki kriter belli ülkelere adil olmayan fırsatlar sağlar. Ayrıca zengin bir kriter seti, ülkelerin politika yapıcılarının itibar edebileceği güvenilir sonuçlar ortaya koyar. Ayrıca bu durum eğitimde eşitliğin çok boyutlu doğasını daha iyi yansıtır. Bu çalışmada ülkeleri eğitimde eşitliğe göre değerlendirmek için OECD'nin 7 politika alanına bağlı 18 alt başlık içinde yer alan 35 gösterge ve buna bağlı 109 alt gösterge kullanılmıştır.

Bulgular

Bulgular, G (Kapsayıcı bir okul ortamının sağlanması) politika alanının en yüksek ağırlığa sahip olduğunu ortaya çıkarmıştır (w=0.18). Bu politika alanı eğitimsel eşitlikte sadece fiziksel ve yapısal yönler değil psikolojik boyutun da kritik rolüne vurgu yapmaktadır. Bunun yanında eğitimde eşitlik psikososyal refaha, aidiyet duygusuna ve okul iklimine güçlü bir şekilde bağlı olduğunu göstermektedir. Bu politika alanında okul ortamı (w=0.1105), okul topluluğu (w=0.0437), öğrenci ve öğretmen refahı (w=0.0282) kriterleri bulunmaktadır. Bu politika alanında en yüksek ağırlık değeri okul ortamı kriterine aittir. Bu durum öğrencilerin güvenli ve destekleyici bir ortamda öğrenim görmelerinin ya da görmemelerinin eğitimde eşitlik ya da eşitsizlik yaratmada güçlü rolüne vurgu yapmaktadır.

MEREC yönteminden elde edilen ağırlık değerleri kullanılarak 7 politika alanına bağlı 18 alt başlık içinde yer alan 35 gösterge ve buna bağlı 109 alt göstergeye dayanarak MABAC yöntemiyle ülkeler sıralanmıştır. Ülkeler eğitimde eşitlik bakımından hem politika başlıkları hem de genel olarak sıralanmıştır. 51 ülkenin yer aldığı sıralamada ülkeler üç sınıfa ayrılmıştır. 1-17 arasında sıralanan

ülkeler yüksek performans, 18-34 arasında sıralanan ülkeler orta performans, 35-51 arasında sıralanan ülkelerse düşük performanslı olarak sınıflandırılmıştır.

Bulgulara göre İspanya, Avusturya, Danimarka, Almanya ve Norveç genel sıralamada ilk beş sırada yer almaktadır. Bu ülkeler sadece belirli alanlarda değil birden fazla politika alanında tutarlı ve sürdürülebilir bir performansla eğitimde eşitlikte üst sıralarda yer almışlardır. Ancak ilk beşte yer alan ülkelerin bile düşük performans gösterdiği alanlar bulunmaktadır. İspanya ilk sırada olmasına rağmen iki alanda düşük performansa sahiptir. Benzer şekilde Avusturya ikinci sırada olmasına rağmen iki alanda düşük performans göstermiştir. Avrupa ülkelerinin genel olarak daha yüksek performans gösterdiği görülmektedir. Çin, ABD, Japonya gibi gelişmiş ekonomiler genel sıralamada yüksek performans gösterememiştir. Endonezya, Brezilya, Slovakya ve Arjantin son sıralarda yer alarak eğitimde eşitliğin birçok boyutunda düşük performans göstermiştir.

Tartışma, Sonuç ve Öneriler

Çalışmanın bulguları eğitimde eşitliği sağlamaya yönelik politikalarda sadece kaynaklar değil aynı zamanda psikososyal, ekonomik, pedagojik ve sosyolojik faktörlerin birlikte değerlendirilmesi gerektiğini göstermiştir. Politika G'nin (kapsayıcı okul ortamı) en yüksek önem düzeyine sahip politika alanı olduğu ortaya çıkmıştır. Bu durum son yıllarda eğitimde eşitlik tartışmalarında psikososyal etmenlerin artan önemine işaret etmektedir.

Bulgular eğitimde eşitliğin sadece akademik başarı ya da okul için eşitlikle ilgili değil okul sonrası ekonomik ve toplumsal hayata etkileri ile birlikte değerlendirilmesi gerektiğini göstermektedir. Eğitime katılımın ve eğitim düzeyinin bireyin gelecekteki hayatı üzerine etkileri göz önüne alındığında eğitimde eşitliğe yönelik atılan her adımın sadece bugün için değil bireylerin gelecekteki hayatlarında da eşitlik için yapılan bir çaba olduğu anlamına gelmektedir.

Eğitimde eşitliğe dair yatırımların okul öncesi dönemden başlaması gerektiği ve buradan elde edilecek kazanımların bireyin gelecekteki hayatını şekillendirdiği göz önüne bulundurulmalıdır. Eğitim politikaları öğrencilerin sadece akademik başarıya değil aynı zamanda çağın gerekliliklerine uyum sağlayabilecek şekilde yapılandırılmalıdır. Eğitim eşitliğinin sağlanmasında öğretmenlerin ve liderlerin bu sürece entegre edilmesi ve onların kritik rolünün farkında olunması önemlidir.

Elde edilen bulgular ülkelerin güçlü ve zayıf yönlerini görmelerini ve bu sonuçlarla uyumlu politikalar geliştirmelerine yardımcı olur. Bulgular eğitimde eşitlik performanslarının sadece tek boyutlu bir yapı değil çoklu politika alanları dikkate alınarak değerlendirilmesi gerektiğini ortaya koymuştur.