

## REGENERATION OF TEACHING HUMAN CAPITAL: A STRATEGIC APPROACH TO THE SUSTAINABILITY OF THE EDUCATIONAL SYSTEM

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**Abstract:** *In knowledge-based economies, education systems play a fundamental role in human capital formation and in supporting long-term economic development. In this context, the stability and quality of the teaching workforce become strategic factors for the sustainability of educational systems. This paper analyzes the issue of teaching human capital regeneration from the perspective of the economics of education and public sector human resource management. The study highlights the economic and institutional costs generated by the instability of the teaching workforce, as well as their impact on the efficiency of public investment in education. The analysis focuses on the Romanian educational system, identifying several structural challenges, including demographic decline, fragmented teaching workloads, the uneven distribution of teaching positions between urban and rural areas, and recruitment difficulties in specific segments of the system. Based on this analysis, the paper proposes a strategic model for managing teaching human capital, structured around three complementary dimensions: attraction, stabilization, and professional regeneration. The model emphasizes the need for integrated public policies aimed at strengthening the stability of the teaching workforce and enhancing the sustainability of the educational system. The findings suggest that the regeneration of teaching human capital should be understood as a strategic investment with long-term economic, social, and institutional implications.*

**Keywords:** *teaching human capital; educational sustainability; human resource management in education; teacher retention; educational public policies; economic development*

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### 1. Introduction

In knowledge-based economies, human capital is widely recognized as a fundamental factor of economic growth, innovation, and social development. Education systems play a central role in the formation of human capital by providing individuals with the knowledge, skills,

and competencies required to participate effectively in modern labor markets. As a result, the quality and sustainability of education systems have become increasingly important not only for educational outcomes but also for the long-term competitiveness and resilience of national economies (OECD, 2023; World Bank, 2023).

Within this context, teachers represent one of the most valuable resources of any educational system. Their professional expertise, commitment, and continuous development directly influence the quality of teaching and learning processes, as well as the formation of future generations of human capital. However, educational systems across the world are facing growing challenges related to teacher shortages, workforce ageing, declining attractiveness of the teaching profession, and difficulties in recruiting and retaining qualified personnel (European Commission, 2023; UNESCO, 2024). These developments have increased concerns regarding the long-term capacity of education systems to maintain a stable and effective teaching workforce.

The instability of teaching human capital has implications that extend beyond the institutional level of schools. High levels of teacher turnover can affect the continuity of the educational process, reduce the efficiency of public investment in education, and contribute to educational inequalities, particularly in disadvantaged communities (OECD, 2024). From this perspective, the management of teaching human capital has become a strategic issue closely linked to educational sustainability and broader socio-economic development.

The Romanian educational system reflects many of these international trends while also facing specific structural challenges. Demographic decline, migration, territorial disparities between urban and rural areas, and difficulties in staffing certain educational segments place additional pressure on the management of educational human resources. In some areas, such as education in minority languages, recruitment and retention challenges are further intensified by the limited availability of qualified teachers with the required linguistic and professional competencies.

Against this background, the regeneration of teaching human capital emerges as an essential condition for ensuring the sustainability of the educational system. Regeneration should not be understood solely as the replacement of retiring teachers, but as a broader process that includes attracting new entrants to the profession, supporting their professional integration, and creating opportunities for continuous development throughout their careers.

This paper addresses the challenges associated with the regeneration of teaching human capital in the context of demographic change, teacher shortages, and workforce instability. Its purpose is to examine the strategic role of teaching human capital in supporting educational sustainability and to propose a conceptual framework for its management and regeneration. The study combines perspectives from the economics of education and public sector human resource management to analyze the main vulnerabilities affecting the Romanian educational system and to develop a strategic model based on three interconnected dimensions: attraction, stabilization, and professional regeneration. By doing so, the paper contributes to the ongoing discussion on educational sustainability and highlights the importance of long-term policies aimed at strengthening the stability, quality, and resilience of the teaching workforce.

The remainder of the paper is organized as follows. The next section reviews the relevant literature on teaching human capital and teacher retention, followed by the presentation of the research methodology. The results and discussion section examines the Romanian

educational context and introduces the proposed strategic model. The paper concludes with policy implications, limitations, and directions for future research.

## 2. Literature Review

### 2.1. *Teaching Human Capital and Teacher Retention in Educational Systems*

The role of teachers in the development of human capital has been widely recognized in the literature on the economics of education and public policy. As the primary agents responsible for knowledge transmission and skills development, teachers significantly influence educational outcomes, labour market preparedness, and long-term economic growth (OECD, 2023). Consequently, the quality, availability, and stability of the teaching workforce have become central concerns for educational systems worldwide.

Recent studies indicate that many countries are facing increasing difficulties in attracting and retaining qualified teachers. International organizations have reported persistent teacher shortages, ageing teaching populations, and declining interest in teaching careers among younger generations (European Commission, 2023; UNESCO, 2024). These trends have raised concerns regarding the long-term sustainability of educational systems and their capacity to provide equitable access to quality education.

In response to these challenges, the concept of teacher retention has received growing attention in both research and educational policy. Earlier approaches primarily focused on teacher preparation and initial qualification, whereas more recent studies emphasize the importance of supporting teachers throughout their professional careers. Retention is increasingly understood as the result of a complex interaction between financial incentives, working conditions, professional recognition, career development opportunities, and institutional support mechanisms (World Bank, 2023).

However, despite the growing volume of research on teacher retention, the literature remains fragmented. Many studies examine individual determinants of teachers' decisions to remain in or leave the profession, but fewer studies address the broader dynamics of teaching human capital across the entire professional lifecycle. Recruitment, retention, and professional development are frequently analysed as separate policy domains, even though they are closely interconnected in practice. As a result, existing research often provides partial explanations of workforce sustainability without offering an integrated perspective on how educational systems can continuously regenerate their teaching human capital.

This limitation is particularly relevant in the context of contemporary demographic and social transformations. Educational systems are not only required to retain existing teachers but also to attract new entrants and support their long-term professional development. Consequently, there is a growing need for conceptual approaches that view teaching human capital as a dynamic resource requiring continuous regeneration rather than merely periodic replacement.

### 2.2. *The Economic Implications of Teaching Workforce Instability*

The increasing attention given to teacher retention is closely linked to the economic and institutional consequences of workforce instability. In the economics of education, teacher turnover is no longer viewed solely as a human resource issue but as a factor that directly affects the efficiency of public investment in education and the performance of educational systems.

Workforce instability generates several categories of costs. Direct costs arise from recruitment, selection, induction, and training activities required to replace departing teachers. Educational institutions invest significant resources in developing professional competencies, and these investments become less efficient when teachers leave the profession after relatively short periods of service. In addition, educational systems must repeatedly allocate resources to attract and prepare new entrants.

Beyond these direct costs, teacher turnover also creates organizational challenges. Frequent staff changes may disrupt the continuity of educational processes, increase administrative burdens, and weaken schools' capacity to implement long-term development strategies. International evidence suggests that teacher shortages have become a structural concern rather than an isolated phenomenon. OECD reports indicate that the proportion of students enrolled in schools affected by teacher shortages has increased significantly in recent years, highlighting the growing scale of this challenge (OECD, 2024).

The literature also emphasizes the broader social consequences of workforce instability. High levels of teacher turnover may negatively affect student achievement, reduce educational quality, and contribute to inequalities between schools and regions. These effects are particularly visible in disadvantaged communities, where difficulties in attracting and retaining qualified teachers may reinforce existing educational disparities (OECD, 2024).

Although these economic and social consequences are increasingly recognized, important gaps remain in the literature. Existing studies tend to focus primarily on measuring direct financial costs or analysing retention at the institutional level. Comparatively less attention has been paid to the long-term implications of workforce instability for the regeneration of educational human capital and for the sustainability of educational systems as a whole. Furthermore, most international analyses focus on general trends, while the specific interaction between demographic change, territorial disparities, and human resource management receives less attention.

These limitations are particularly relevant for countries experiencing significant demographic transformations, such as Romania. Declining student populations, migration, regional inequalities, and challenges related to staffing specialized educational segments create conditions that differ from those examined in many international studies. Consequently, there is a need for context-specific analyses capable of connecting international evidence with the structural realities of national educational systems.

The review of the literature suggests that teacher shortages, retention difficulties, and workforce instability are increasingly recognized as major challenges for educational systems worldwide. Nevertheless, limited attention has been given to the integration of these issues within a comprehensive framework focused on the regeneration of teaching human capital. The existing literature provides valuable insights into recruitment, retention, and professional development, but these dimensions are often examined independently. This study seeks to address this gap by analysing the Romanian educational context and proposing a strategic model that integrates attraction, stabilization, and professional regeneration into a unified framework for the sustainable management of teaching human capital.

### 3. Methodology

This study employs a qualitative and descriptive research design aimed at analysing the challenges associated with the regeneration of teaching human capital and their implications for the sustainability of educational systems. The research combines perspectives from the economics of education and public sector human resource management in order to examine the factors influencing the stability and development of the teaching workforce.

The study is based primarily on documentary analysis and comparative analysis of secondary data. Documentary analysis was used to review relevant literature, policy documents, and reports published by major international organizations, including the Organisation for Economic Co-operation and Development (OECD), UNESCO, the World Bank, the European Commission, and Eurostat. These sources provided the theoretical and policy framework for understanding teacher shortages, workforce instability, and human capital management in education.

In addition, the study uses statistical data obtained from the Romanian National Institute of Statistics and the Romanian Ministry of Education. The analysis focuses on a set of indicators considered relevant for educational human resource management, including the evolution of the school-age population, the number of teachers, the student–teacher ratio, the territorial distribution of teaching staff between urban and rural areas, and trends related to teacher shortages reported at the international level.

The research follows a two-stage analytical approach. The first stage consists of a review of the literature and institutional reports in order to identify the main concepts and challenges associated with teaching human capital. The second stage involves the analysis and interpretation of selected educational indicators in the Romanian context. Based on the findings of these analyses, a conceptual model for the strategic management of teaching human capital is developed.

The proposed model is structured around three interconnected dimensions: attraction, stabilization, and professional regeneration. These dimensions were identified through the synthesis of findings from the literature and the analysis of the structural challenges affecting educational human resources.

Several limitations should be acknowledged. The study relies primarily on aggregated statistical data and institutional reports and does not include primary data collected from teachers, school leaders, or educational administrators. Furthermore, the proposed model is conceptual in nature and has not been empirically tested using quantitative methods. Nevertheless, the approach provides a useful framework for understanding the long-term challenges associated with the sustainability and regeneration of teaching human capital and may serve as a basis for future empirical research.

### 4. Results and Discussion

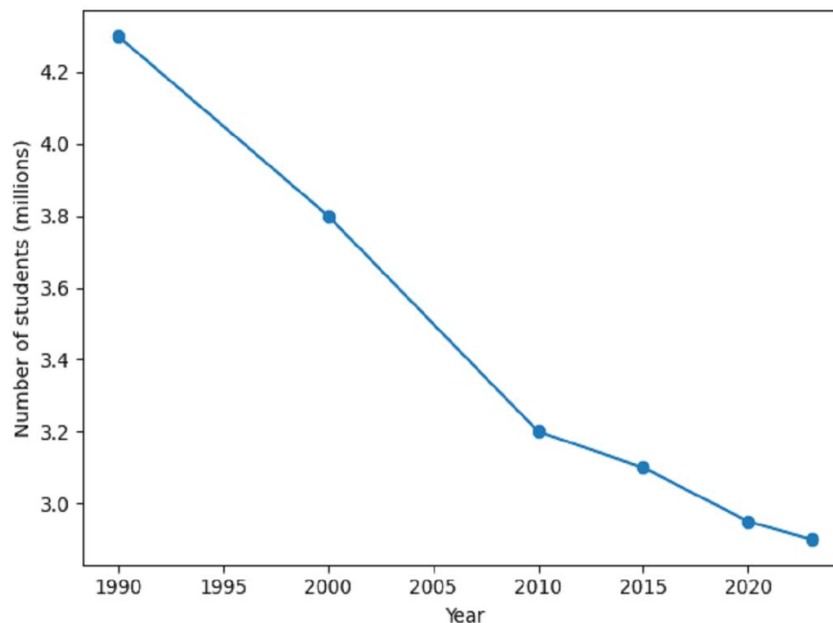
The analysis of teaching human capital in Romania highlights the interaction between demographic, institutional, and workforce-related factors that influence the sustainability of the educational system. Building on the methodological approach presented in the previous section, this part of the study examines key indicators relevant to educational human resource management and discusses their implications for the regeneration of teaching human capital.

Particular attention is given to demographic transformations, the evolution of the teaching workforce, territorial disparities in the distribution of educational resources, and the specific challenges associated with minority language education. These factors are analysed not as isolated phenomena but as interconnected elements shaping the capacity of the educational system to attract, retain, and develop qualified teaching staff.

The findings suggest that the challenges affecting teaching human capital extend beyond issues of workforce size and involve broader questions related to workforce stability, professional sustainability, and long-term policy planning. Based on the interpretation of the analysed indicators, the final part of this section proposes a strategic model designed to support the regeneration of teaching human capital and strengthen the sustainability of the educational system.

#### ***4.1. Demographic Transformations and Human Resource Challenges in the Romanian Educational System***

The sustainability of teaching human capital in Romania must be examined within the broader context of demographic and structural transformations that have significantly influenced the educational system during the last decades. Similar to other European countries, Romania has experienced a continuous decline in its school-age population, primarily as a result of decreasing birth rates and migration. These demographic developments have altered the demand for educational services and have generated important challenges for educational planning and human resource management.



**Figure 1. Evolution of the school population in Romania (1990–2023)**

*Source: Authors' elaboration based on data from the National Institute of Statistics of Romania.*

As illustrated in Figure 1, the number of students enrolled in the Romanian educational system has decreased substantially since the early 1990s. This trend reflects a long-term demographic contraction that has affected both the size and the structure of the school network. The reduction in the school population has led to the reorganization of educational

institutions, particularly in rural areas, where declining enrolment has often resulted in school mergers or closures.

From a human resource management perspective, demographic decline has produced complex effects that extend beyond the simple reduction of student numbers. In theory, a smaller school population could reduce the demand for teaching staff. However, the relationship between demographic change and educational human resources is not linear. Educational systems must continue to ensure adequate access to education across different geographical areas and educational levels, regardless of fluctuations in student enrolment.

The evolution of teaching staff in Romania illustrates this complexity. While the number of students has declined significantly, the reduction in the number of teachers has been considerably more moderate. As shown in Figure 3, the two trends have not evolved proportionally, suggesting the existence of structural factors that influence workforce planning. These include the need to maintain educational services in sparsely populated areas, curriculum requirements, and efforts to preserve acceptable teaching conditions despite demographic decline.

At the same time, demographic transformations have generated new challenges for the regeneration of teaching human capital. The ageing of the teaching workforce, combined with difficulties in attracting younger generations to the profession, creates additional pressure on educational institutions. In this context, workforce sustainability depends not only on maintaining an adequate number of teachers but also on ensuring generational renewal and the continuous development of professional competencies.

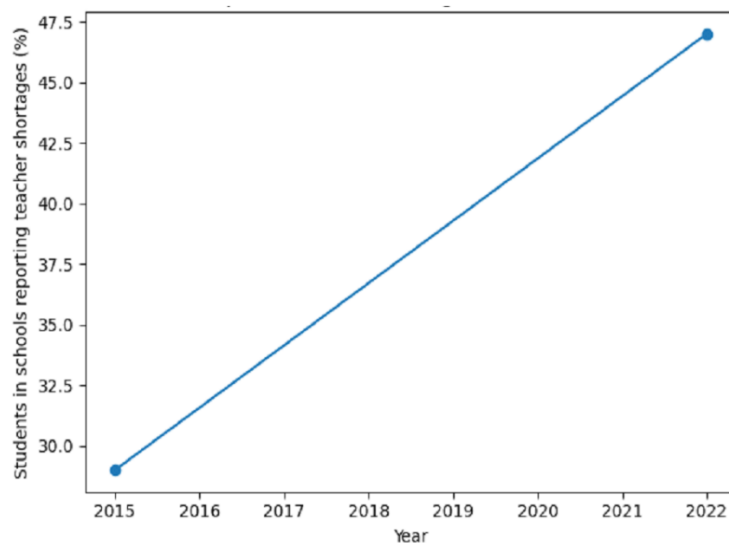
The Romanian case demonstrates that demographic decline does not automatically eliminate human resource challenges within education. On the contrary, it may create new vulnerabilities related to workforce distribution, recruitment, and long-term planning. Consequently, educational human resource management must move beyond reactive administrative measures and adopt a strategic perspective capable of anticipating future demographic and labour market developments.

These findings suggest that the regeneration of teaching human capital should be considered a long-term policy priority. Addressing demographic challenges requires not only adjustments in workforce size but also coordinated measures aimed at attracting new teachers, supporting professional integration, and ensuring the long-term stability of the teaching profession.

#### ***4.2. Analysis of Educational Human Resource Indicators***

The indicators analysed in this study reveal several structural trends affecting educational human resources both internationally and within the Romanian educational system. Together, these trends provide a broader understanding of the challenges associated with workforce sustainability, teacher retention, and the long-term regeneration of teaching human capital.

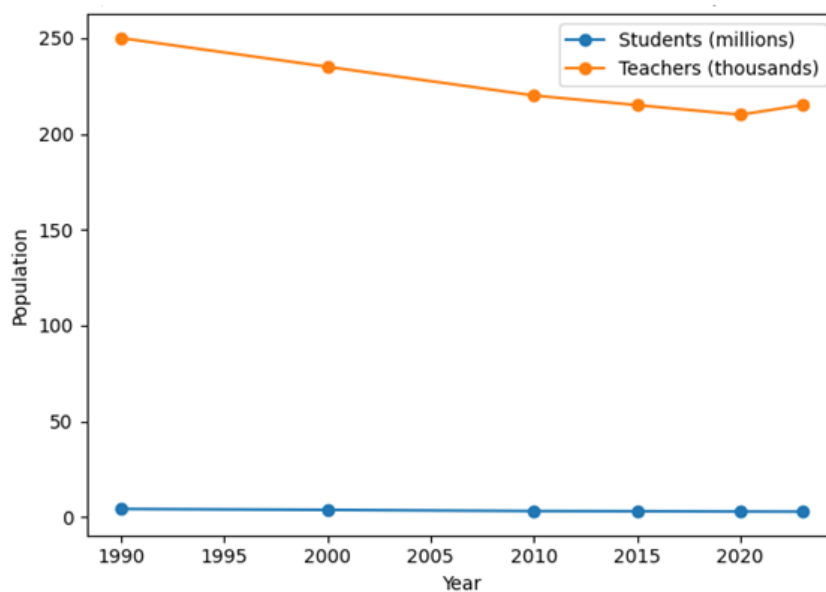
Teacher shortages have become an increasingly visible concern across educational systems worldwide. As shown in Figure 2, the proportion of students enrolled in schools where principals report insufficient teaching staff increased significantly between 2015 and 2022 in OECD countries. This development suggests that difficulties related to teacher recruitment and retention are no longer isolated institutional problems but represent a structural challenge affecting educational systems internationally. The growing scale of teacher shortages indicates that traditional recruitment approaches may no longer be sufficient and that more comprehensive strategies are required to ensure workforce sustainability.



**Figure 2. Trend of reported teacher shortages in OECD countries (2015–2022)**

*Source: OECD Education Policy Outlook (2024)*

The Romanian educational system reflects some of these broader international trends, although within a specific demographic context. As illustrated in Figure 3, the decline in the school-age population has not been accompanied by a proportional reduction in the number of teachers. At first glance, this situation could suggest a reduction in pressure on educational human resources. However, a closer examination indicates that demographic decline does not automatically eliminate workforce challenges. Educational institutions must continue to ensure access to education across diverse geographical areas and educational levels, regardless of fluctuations in student numbers. Consequently, workforce planning remains a complex process that cannot be based solely on demographic indicators.

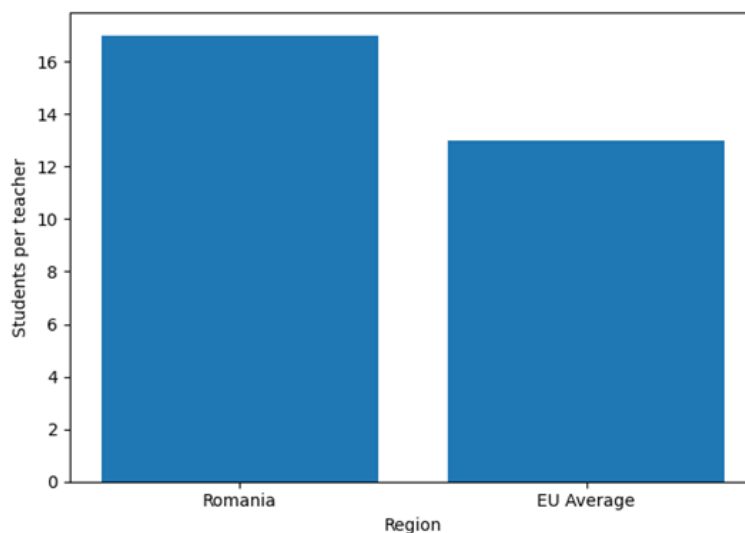


**Figure 3. Evolution of students and teachers in Romania (1990-2023)**

*Source: Authors' elaboration based on data from the National Institute of Statistics of Romania and the Ministry of Education of Romania.*

The student–teacher ratio is a key indicator for assessing human resource capacity in education. Comparative data indicate that Romania records a higher student–teacher ratio than the European Union average, suggesting increased pressure on the educational workforce. This indicator reflects both demographic trends and the organizational characteristics of the education system, emphasizing the importance of effective policies aimed at teacher recruitment, retention, and workforce sustainability.

Additional insights emerge from the analysis of the student–teacher ratio presented in Figure 4. This indicator is frequently used to assess the availability of teaching resources and the capacity of educational systems to provide effective learning conditions. Comparative data indicate differences between Romania and the European Union average, reflecting variations in the organization of educational services and the allocation of human resources. While student–teacher ratios alone do not determine educational quality, they may signal pressures on teaching staff and highlight potential difficulties in maintaining adequate educational support for students.



**Figure 4. Student – teacher ratio: Romania versus EU average (recent years)**

*Source:* Authors' elaboration based on data from OECD (Education at a Glance) and Eurostat.

The territorial distribution of teachers also represents an important dimension of educational human resource management. As shown in Table 1, teaching staff are unevenly distributed between urban and rural areas. Such disparities may contribute to difficulties in filling vacancies in certain regions and can affect the capacity of schools to attract and retain qualified personnel. In rural communities, workforce shortages are often compounded by demographic decline, limited professional opportunities, and reduced access to support services, creating additional barriers to workforce stability.

Taken together, these indicators suggest that the challenges affecting teaching human capital cannot be explained by a single factor. Rather, they result from the interaction of demographic trends, workforce distribution patterns, institutional conditions, and broader labour market dynamics. This finding supports the argument that educational human resource management requires an integrated and long-term perspective. Policies focused exclusively on recruitment or workforce allocation are unlikely to provide sustainable solutions unless they are accompanied by measures aimed at professional stabilization and continuous regeneration of teaching human capital.

**Table 1. Distribution of teaching staff between urban and rural areas**

Environment	Estimated number of teachers	Percentage (%)
Urban	150000	68
Rural	70000	32

*Source: Authors' elaboration based on data from the National Institute of Statistics of Romania and the Ministry of Education of Romania.*

The analysis also highlights the importance of moving beyond short-term responses to staffing difficulties. Sustainable educational systems require not only an adequate number of teachers but also mechanisms capable of supporting workforce stability, professional development, and generational renewal. These considerations provide the foundation for the strategic model proposed in the following sections.

#### **4.3. Human Resource Management Challenges in Minority Language Education**

Education in minority languages represents an important component of the Romanian educational system, contributing to the protection of cultural diversity and to the exercise of the right to education in one's mother tongue. Through a network of educational institutions operating in minority languages, the system supports both educational inclusion and the preservation of linguistic and cultural identity. At the same time, this segment of education presents particular challenges from the perspective of human resource management.

Unlike the general education system, minority language education requires teaching staff who possess not only pedagogical qualifications but also the linguistic competencies necessary to teach specific subjects in the respective language. As a result, the recruitment pool for these positions is considerably more limited. The availability of qualified candidates depends on the capacity of higher education institutions to prepare future teachers with the required linguistic and professional competencies, as well as on the attractiveness of the teaching profession for graduates belonging to minority communities.

From a human capital perspective, this situation highlights the importance of considering not only the quantity of educational personnel but also the availability of specialized competencies. While demographic decline may reduce the overall demand for teachers in certain regions, it does not necessarily reduce the demand for qualified staff in minority language education. In some cases, difficulties in recruitment may persist despite declining student enrolment because the supply of teachers with the required qualifications remains limited.

Additional challenges arise from the geographical distribution of educational institutions providing instruction in minority languages. In certain areas, teachers may be required to work in multiple schools in order to complete their teaching workload, increasing professional mobility and creating additional organizational pressures. Such arrangements may affect job stability, professional satisfaction, and long-term retention, particularly among early-career teachers.

The literature on educational human resource management suggests that workforce sustainability depends not only on recruitment but also on the capacity of institutions to retain

and develop qualified personnel. In the case of minority language education, this objective becomes particularly important because replacing specialized staff may require considerably more time and resources than in the general education system. Consequently, workforce instability may have a stronger impact on educational continuity and institutional performance.

The Romanian experience illustrates how specialized educational segments can reveal structural vulnerabilities that are not always visible when analysing aggregate indicators alone. The challenges associated with minority language education demonstrate that effective human resource management must take into account the diversity of educational contexts and the specific characteristics of different categories of teaching staff. These findings further support the need for integrated strategies aimed at attracting, stabilizing, and regenerating teaching human capital across the entire educational system.

#### ***4.4. A Strategic Model for Teaching Human Capital Regeneration***

The analysis presented in the previous sections suggests that the challenges affecting teaching human capital are complex and cannot be effectively addressed through isolated interventions. International reports and recent research consistently highlight teacher shortages, workforce ageing, retention difficulties, and the growing need for continuous professional development (European Commission, 2023; OECD, 2024; UNESCO, 2024). However, these challenges are often addressed through separate policy measures, with recruitment, retention, and professional development treated as distinct areas of intervention.

This fragmented approach presents important limitations. Policies designed to increase recruitment may temporarily alleviate staffing shortages, but their impact remains limited if newly recruited teachers leave the profession during the early stages of their careers. Similarly, retention initiatives may improve workforce stability in the short term, yet their effectiveness can be reduced if teachers have limited opportunities for professional growth and career advancement. As a result, educational systems may continue to experience workforce instability despite significant investments in individual policy measures (World Bank, 2023).

Another limitation concerns the predominantly short-term orientation of many educational workforce policies. Existing approaches frequently focus on addressing immediate staffing needs without sufficiently considering long-term demographic trends, generational renewal, and the continuous development of professional competencies. In this context, workforce sustainability requires a broader perspective that extends beyond recruitment and retention and incorporates the long-term regeneration of teaching human capital.

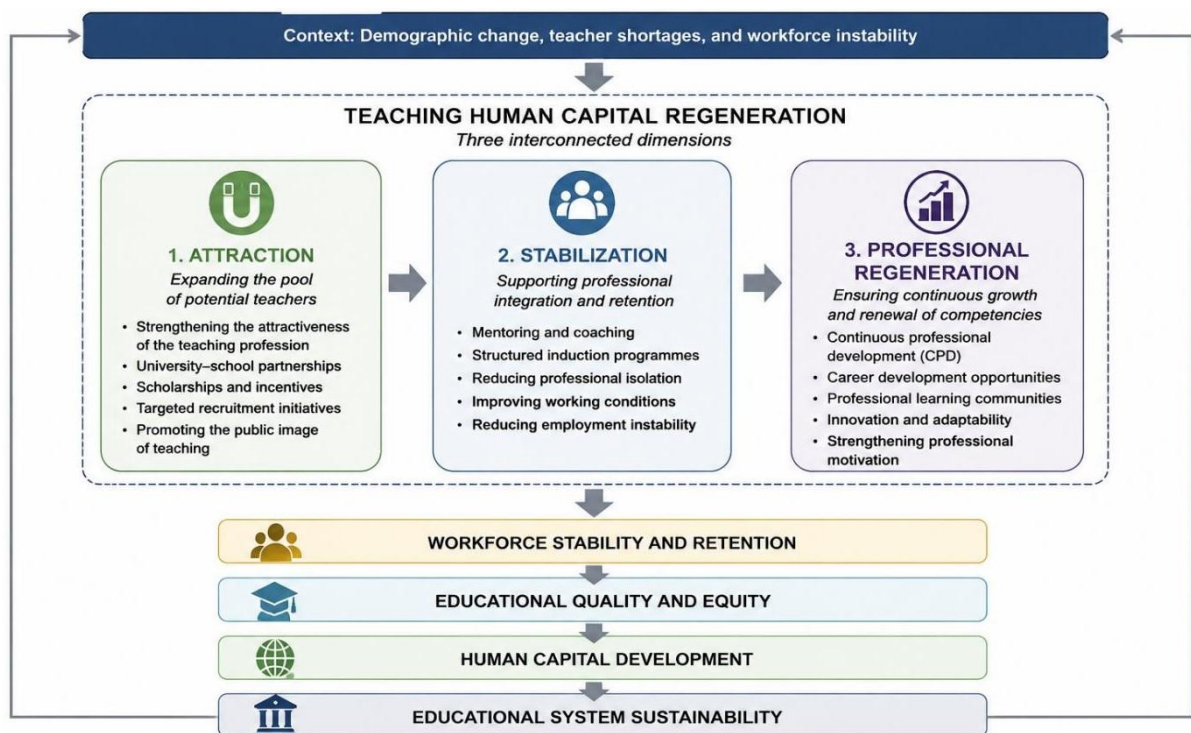
The findings of this study support the view that teaching human capital should be understood as a dynamic strategic resource requiring continuous regeneration throughout the professional lifecycle. Building on this perspective, a strategic model for teaching human capital regeneration is proposed. The model, shown in Figure 5, integrates three complementary dimensions - attraction, stabilization, and professional regeneration - within a unified framework aimed at strengthening educational workforce sustainability and supporting the long-term resilience of educational systems.

The first dimension, attraction, focuses on increasing the attractiveness of the teaching profession and expanding the pool of potential entrants. Research suggests that recruitment challenges are influenced not only by salary levels but also by professional prestige, career prospects, and opportunities for professional fulfilment (OECD, 2023; European Commission, 2023). Consequently, attraction policies may include stronger partnerships between

universities and schools, scholarship programmes, targeted recruitment initiatives, and measures designed to improve the public image of the teaching profession.

The second dimension, stabilization, addresses the critical transition from initial recruitment to long-term professional integration. The literature indicates that the early years of a teaching career are associated with a higher risk of attrition, making this stage particularly important for workforce sustainability (OECD, 2024; UNESCO, 2024). Effective stabilization strategies may therefore include mentoring programmes, structured induction processes, reduced professional isolation, and measures aimed at improving working conditions and reducing employment instability.

The third dimension, professional regeneration, emphasizes the continuous development and renewal of professional competencies throughout the teaching career. While continuous professional development is widely recognized as an important component of educational quality, it is often treated as a separate activity rather than as an integral element of workforce sustainability (World Bank, 2023; UNESCO, 2024). The proposed model views professional regeneration as a continuous process that supports career development, strengthens professional motivation, and enables teachers to respond effectively to changing educational and societal demands.



**Figure 5. Strategic Model for Teaching Human Capital Regeneration**

*Source:* Author's illustration, edited with the assistance of artificial intelligence.

Unlike many existing approaches that focus primarily on recruitment or retention, the proposed model integrates the entire professional trajectory of teachers within a single conceptual framework. This perspective reflects the dynamic nature of teaching human capital and acknowledges that workforce sustainability depends on the interaction between attraction, stabilization, and continuous professional development. The model therefore addresses one of

the key gaps identified in the literature, namely the limited integration of these dimensions within a coherent strategy for educational human resource management. The originality of the proposed model lies not in the individual dimensions themselves, which have been discussed separately in the literature, but in their integration within a single framework focused on the continuous regeneration of teaching human capital. This perspective shifts the focus from isolated workforce interventions to a long-term sustainability approach that connects recruitment, professional integration, and career-long development.

From a policy perspective, the model suggests that sustainable educational systems require coordinated interventions across all stages of the teaching career. Isolated measures are unlikely to generate lasting improvements unless they are supported by broader strategies that strengthen workforce stability, professional growth, and generational renewal. Consequently, the regeneration of teaching human capital should be understood as a long-term investment in educational quality, human capital development, and institutional sustainability.

## 5. Conclusions

The sustainability of educational systems depends to a large extent on their capacity to attract, retain, and continuously develop qualified teaching personnel. In knowledge-based economies, teaching human capital represents not only a key educational resource but also a strategic asset for economic development, social cohesion, and the long-term formation of human capital. In the context of demographic decline, workforce ageing, teacher shortages, and increasing labour market competition, the regeneration of teaching human capital has become a strategic priority for educational policy and public sector human resource management.

The analysis conducted in this study demonstrates that the challenges affecting teaching human capital in Romania extend beyond issues related to workforce size. They also involve territorial disparities, workforce stability, professional attractiveness, and the long-term capacity of the educational system to ensure generational renewal. These challenges are particularly significant in specialized educational segments, including minority language education, where recruitment opportunities are more limited and workforce sustainability depends on a relatively narrow pool of qualified personnel.

The review of the literature revealed that recruitment, retention, and professional development are often examined as separate policy domains. While existing studies provide valuable insights into each of these dimensions, they offer a more limited understanding of the interactions between them. This study contributes to the literature by approaching teaching human capital from the perspective of continuous regeneration and by proposing a strategic model that integrates attraction, stabilization, and professional regeneration within a single framework.

Based on the analysis of educational indicators and the structural challenges affecting the Romanian educational system, the proposed model emphasizes the need for integrated and long-term policies capable of supporting both the recruitment of new teachers and the professional development and retention of existing personnel. The findings suggest that educational sustainability should be approached not only as a matter of institutional performance but also as a long-term investment in human capital. Policies aimed at strengthening the stability and quality of the teaching workforce may contribute to improving educational outcomes, increasing the efficiency of public investment in education, and supporting broader socio-economic development.

Several limitations should be acknowledged. The study relies primarily on documentary analysis and secondary statistical data obtained from institutional sources and does not include empirical evidence collected directly from teachers, school leaders, or educational institutions. In addition, the proposed model is conceptual in nature and has not been empirically validated. Future research could test its applicability through quantitative analyses, comparative studies, and case studies conducted in different educational contexts. Such investigations could contribute to a deeper understanding of the factors that influence the attraction, stabilization, and regeneration of teaching human capital and support the development of more effective educational policies.

Overall, the paper argues that the regeneration of teaching human capital should be regarded as a strategic investment and a fundamental condition for ensuring the long-term quality, resilience, and sustainability of educational systems.

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