

THE TEACHER AS A COMMUNITY INFLUENCER: THE MECHANISM FOR CONVERTING PEDAGOGICAL VOCATION INTO ECONOMIC VALUE

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Abstract: Education is one of the main factors of economic development, and teachers play a central role in shaping the human capital of a community. This paper analyzes the role of teachers as community influencers and proposes a conceptual and mathematical model to explain the mechanism through which pedagogical vocation generates indirect economic value. Based on human capital theory and the literature on knowledge spillovers, the paper argues that the teacher's vocation influences the quality of education, the level of students' skills, and their economic behaviors. A simplified mathematical model is proposed that quantifies the economic surplus produced by the vocation of teachers through the increase in students' human capital. It also discusses examples from communities in Romania where educational institutions have contributed to local economic development. The results suggest that teaching vocation can be interpreted as a factor generating community intellectual capital, with significant long-term economic effects.

Keywords: teaching vocation, human capital, community influence, education, economic development, knowledge spillover.

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1. Introduction

Education is often regarded as a pillar of economic development, but insufficient emphasis is placed on the teaching profession as a key factor in this process.

When decision-makers and the academic community address the issue of raising educational standards and evaluating educational effectiveness, the focus tends to fall primarily on: infrastructure and technology (modern schools, laboratories, computers, interactive whiteboards, etc. - investments in tangible resources are visible and easy to justify financially); measurable academic performance (results on standardized tests - PISA, national exams - graduation rates, and statistics on access to higher education); curriculum and competencies (emphasis on adapting programs to labor market demands, preparing students for economic fields considered strategic - STEM, digitalization); educational policies and management (national plans, curriculum reforms, performance standards; system evaluation relies more on reports and statistics than on direct pedagogical observation).

All elements related to the teaching vocation are neglected:

- Teacher dedication and passion: A passionate teacher can completely transform the educational experience, but this aspect is difficult to measure.

- Emotional intelligence and the ability to motivate: The impact of a teacher who inspires and cultivates curiosity is enormous, but difficult to quantify.
- Creativity in teaching and adaptability to students' needs: The standard curriculum does not always reflect how a teacher can personalize learning.
- Development of a positive educational culture: The teacher-student relationship, classroom climate, and values such as empathy and responsibility are undervalued.

This neglect of the teaching vocation is due to a combination of complex factors - political, social, but especially economic.

I list a few of these factors as examples:

- Public policies and funding are geared toward quantifiable results.
- Society views economic success through concrete outputs (employability, salaries, technical skills).
- The teaching vocation is an intangible factor, difficult to standardize and evaluate through statistics.
- Passionate teachers are often underappreciated or do not receive resources for continuous professional development.

Although investment in infrastructure, curriculum, and technical skills is necessary, the teaching vocation remains the key factor that makes education effective and sustainable in the long term. A lack of recognition of this vocation can lead to systems that are “high-performing on paper” but fail to produce creative, responsible, and motivated individuals.

In this paper, we propose a theoretical model that describes how a teacher's vocation influences the economy through the formation of human capital. We will analyze the mechanism through which teachers' dedication and commitment to education translate into increased student competencies, which subsequently translate into economic value at the individual and societal levels. The main objective of this paper is to show that the teaching vocation can be viewed as a valuable economic resource, having a significant impact on the economic development of the community.

2. Literature Review

2.1 The Teaching Vocation in the Educational Context

In the literature, the teaching vocation has been viewed primarily from psychological and pedagogical perspectives, defined as a form of deep dedication to education and to students. Many authors argue that vocation influences both the quality of teaching and the interpersonal relationships between teachers and students (Bae, 2016). These relationships, in turn, contribute to a positive educational climate, which is essential for the harmonious development of students.

Although there is ample evidence regarding the impact of teacher quality on student performance (Chetty et al., 2014), very little research directly addresses the conversion of pedagogical vocation into economic value. Teaching vocation is often considered a trait that is difficult to measure economically, yet some studies suggest that quality education,

fostered by dedicated teachers, can lead to increased human capital and economic productivity in the long term (Hanushek, 2010).

However, more recent literature emphasizes that the teaching vocation can have significant direct and indirect economic effects. Some of the direct effects of the teaching vocation, as mentioned in the specialized literature:

- a) Improved quality of education;
 - Passionate teachers explain concepts more clearly, adapt teaching methods, and maintain students' interest;
 - Students acquire solid skills, ready to be applied in the labor market.
- b) Reduced school dropout rates;
 - Students are more motivated to attend school and complete their studies.
 - More graduates mean more human capital for the economy.
- c) Development of key competencies
 - Creativity, critical thinking, problem-solving.
 - These skills increase productivity and innovation in companies and startups.

Furthermore, the specialized literature mentions countless indirect effects of the teaching profession:

- a) Long-term impact on innovation:
 - Inspired students become entrepreneurs, researchers, or professionals who generate new solutions;
 - Knowledge-based economies depend on people capable of thinking creatively and independently.
- b) Reduction of social costs
 - Quality education reduces the risk of unemployment, delinquency, and poverty.
 - Economically prosperous communities have fewer social problems, so they can focus on development.
- c) Improving the reputation of the education system
 - Countries with passionate teachers attract foreign investment and international talent.
 - A well-educated and motivated workforce is attractive to companies.

Thus, the teaching vocation should not be viewed merely as an individual trait, but as a structural factor in educational performance and long-term economic development, whose importance extends beyond the mere allocation of resources or performance on standardized tests.

Traditionally, the economic analysis of education has focused on the number of years of schooling and the material resources allocated to schools, neglecting factors such as teacher motivation and dedication. However, recent research suggests that teaching as a vocation can have significant economic effects,

A compelling example is the study by Chetty et al. (2014), which shows that good teachers have a direct impact on the long-term success of their students, including higher wages, employment rates, and quality of life. These benefits, although often difficult to quantify at the macroeconomic level, are reflected in increased productivity and reduced social costs associated with inefficient education.

2.2 Human Capital and the Impact of Education on the Economy

The theory of human capital, formulated by Gary Becker (1993), suggests that education is an investment that increases individuals' long-term productivity and income. According to this theory, education is not merely a process of accumulating knowledge, but a form of investment in skills that can improve the efficiency of economies. Thus, the vocation of teachers can be understood as an additional factor contributing to the effectiveness of education, improving the efficiency of the learning process and, implicitly, the long-term economic value of students. Dedicated teachers not only impart knowledge but also inspire and shape behaviors that contribute to the full development of students' potential.

In this sense, the teaching vocation can influence human capital not only by creating a stimulating educational environment but also by fostering essential skills that determine students' professional and personal success. This approach is supported by recent research showing that quality education has a direct impact on economic productivity, employment rates, and individuals' standard of living in the long term.

Studies by Raj Chetty (2011) have demonstrated that good teachers can increase a student's long-term income by up to \$50,000, thanks to improvements in their skills and economic performance. This research suggests that teachers' dedication influences not only the educational process but also students' individual economic outcomes. Thus, the teaching vocation not only builds cognitive skills but also contributes to the development of socio-emotional traits that influence graduates' economic behaviors.

In addition to these observations, it is important to note that quality education, supported by passionate teachers, plays a crucial role in reducing economic inequalities. Education not only improves employment opportunities but also helps create a workforce that is more innovative and adaptable to the demands of a dynamic economy. In this context, the teaching profession becomes a key factor in reducing economic disparities and ensuring sustainable economic development.

Furthermore, recent research suggests that investments in education not only improve individuals' professional skills but also establish a virtuous cycle in which each generation of dedicated teachers contributes to building a more resilient and equitable economy. Additionally, economic research on human capital emphasizes that to maximize the economic returns of education, it is essential to support the continuous development of the teaching profession, as well-trained and motivated teachers have a significant impact on overall economic success.

2.3 The Economics of Education and the Impact of Teachers on National GDP

Macroeconomic studies, particularly those conducted by Hanushek (2010), suggest that improving the quality of education can contribute significantly to national GDP growth. According to the human capital growth model, education plays a fundamental role in labor force development and economic productivity growth. According to this model, teachers' vocation can be seen as a factor that enhances human capital formation by creating a more

effective and stimulating learning environment, which contributes to the development of students' economic competencies.

Furthermore, teachers' pedagogical vocation has an impact on the educational process that goes beyond the mere transmission of knowledge, extending to the development of socio-emotional skills, which are essential for adaptability and innovation in the labor market. In this context, vocation becomes a catalyst for improving human capital, which, in turn, is reflected in long-term economic growth.

Recent research has shown that dedicated teachers directly contribute to increased economic productivity, serving as a key factor in workforce quality. For example, a study by Chetty et al. (2014) shows that good teachers can significantly increase students' long-term income, which translates into long-term growth in national GDP through increased individual productivity and public revenue.

Thus, the teaching profession not only influences a nation's level of education but also has direct effects on the national economy through increased productivity, reduced economic inequalities, and improved economic mobility. Furthermore, investments in the continuing professional development of teachers and in supporting the teaching profession can generate a virtuous cycle of economic development, in which quality education contributes to the growth of sustainable and innovative economies.

3. Methodology

The process by which a teacher's vocation generates economic effects can be described by the following mechanism:

teacher's vocation → *educational quality* → *human capital* → *productive economic behaviors* → *community development*

Teachers with a vocation demonstrate a higher level of engagement in the educational process, which leads to improved academic performance among students and the development of their skills. In the long term, these skills translate into economic productivity and the community's capacity for innovation.

To analyze how teachers' vocation influences the economy, we proposed a simplified economic model that integrates several variables. The model is based on the following assumptions:

- a) S (students' skills) depends on the teacher's vocation (V), educational resources (F), the family environment (M), and the additional time devoted to education (T).

The formula for students' skills is:

$$S = S_0 + \beta_1 V + \beta_2 F + \beta_3 M + \beta_4 T \quad (1)$$

where:

S_0 represents the initial level of competencies, without the influence of vocation.

$\beta_1, \beta_2, \beta_3, \beta_4$ are coefficients that measure the impact of vocation, resources, family environment, and additional time on student competencies.

Student competencies consist of two parts:

- competencies that would emerge anyway;
- plus the effect of the teacher's vocation.

Therefore: student skills = basic skills + the effect of vocation

- b) Students' economic income (Y) is a function of the skills acquired:

$$Y = Y_0 + \alpha S + \gamma E + \delta X \quad (2)$$

where:

Y_0 is the student's base income (without additional education).

α , γ , δ are coefficients reflecting the impact of skills on income (S), professional experience (E), and additional education (X).

In economics, there is a simple rule: more skilled people produce more and earn more. Therefore: economic income = base income + the effect of skills

- c) The economic impact of the vocation is expressed by:

$$\Delta Y = \alpha \beta_1 V \quad (3)$$

where:

ΔY is the increase in income due to the teacher's vocation

α is the coefficient showing how much income increases when skills increase

β_1 is the coefficient measuring the impact of the vocation

By integrating these formulas, we can estimate the increase in income and the economic impact generated by the teacher's vocation in the long term.

- d) The model can be scaled up to the national level. For example, if we want to calculate the total impact of teachers' vocation on a country's economy, we could use the following formula:

$$It_n = \sum(N_i + \Delta Y_i) \quad (4)$$

where:

It_n total national impact

N_i the number of students taught by teacher i

ΔY_i the increase in income generated by the students taught by teacher i

In this way, we can estimate the economic impact of teachers' vocation on the national economy.

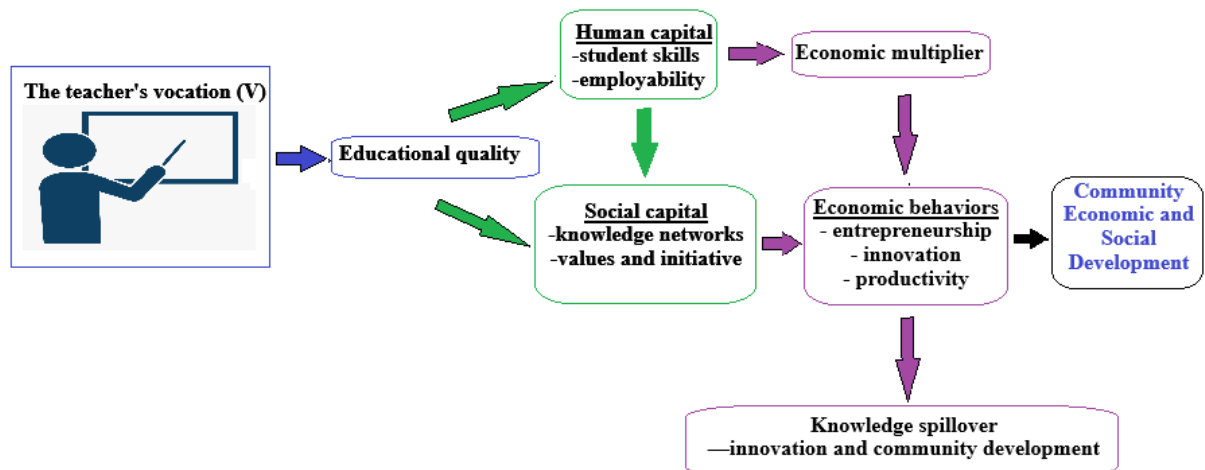


Figure 1. Conceptual model of the conversion of the teaching vocation into economic value: a teacher's vocation enhances the quality of the educational process, which leads to the development of students' human capital, influences economic behaviors, and generates economic benefits at the community level.

The proposed model seeks to highlight the following:

- a dedicated teacher enhances students' skills.
- more skilled students earn higher incomes in the economy.

Therefore, a teacher's dedication generates economic value in society.

Good teachers → more competent students → a stronger economy.

The model is thus an attempt to demonstrate theoretically that teachers' dedication is not merely a moral value, but also a real economic factor. This mechanism is analyzed in many studies by the OECD and the World Bank.

4. Results and Discussion

By applying the proposed model, we observed that teachers' vocation has a significant impact on students' competencies and, consequently, on their long-term earnings. Specifically:

- Teachers' vocation (V) has a high coefficient ($\beta_1 < 1$), indicating that an increase in this factor leads to a significant increase in students' competencies. This is explained by the fact that, under the same conditions regarding educational resources (F), family environment (M), and time devoted to education (T), the teacher's vocation makes the difference.
- The human capital generated by education increases labor productivity, which translates into an additional economic income of approximately 30,000 euros per student, according to economists' estimates (Chetty, 2014).
- Furthermore, teachers' vocation contributes to the growth of national GDP by fostering more productive human capital. The simplified model suggests that the

teaching profession can generate millions of euros in economic value for an entire community by producing better-prepared students.

These results suggest that dedicated teachers can directly influence the economy by improving student performance, which leads to increased individual incomes and, consequently, to the economic progress of society.

5. Conclusions

The proposed model is a simple theoretical model, inspired by human capital theory, which I consider conceptually sound but which needs to be expanded for empirical research. This paper has demonstrated that teaching vocation is an essential economic factor that influences not only the quality of education but also the national economy. Teachers with a strong vocation generate high-quality human capital, which, in the long term, translates into increased income and economic productivity.

It is clear that investments in quality education and support for teachers not only improve educational outcomes but also contribute to the community's sustainable economic growth. In the future, research can expand this model to include additional factors and more accurately measure the long-term impact of teachers' vocation on the economy.

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