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The Economics of Education as Educational Science

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Abstract

This paper aims to examine the immaturity of the economics of education as an educational science brought about by its focus solely on the individual and social benefits of education. Currently, the economics of education does not demonstrate the capacity to propose solutions to educational problems that are effective, efficient, socially workable and economically viable. As a result, the economics of education will only be considered an educational science when it is able to produce solutions to the ineffectiveness and inefficiency of the systems of education. The paper argues that this could be done through the introduction of pedagogy to educational projects.

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1. Introduction

Although the economics of education was born from a union of economic and educational research it is still in a state of scientific immaturity since it is still too closely tied to a traditional approach reliant on the theory of human capital and the economic analysis of education. Indeed, the benefits of education for the individual and for society are still examined using a typically economic approach. For example, research has ranged from: studies into the benefits of education for individuals and societies, the cost of education vis-a-vis levels of government spending, the correlation between a country's levels of education and its levels of economic and social development, the assessment of the quality of educational systems, the examination of levels of literacy in a population from graduates to adults in training, studies into the availability of schooling, analysis of youth unemployment, etc. Such studies have allowed scholars to determine the quality of a country's education system and recognize the importance of assessing schools and further education, in addition to allowing them to identify causal relationships between a country's education and its development. However, such studies are not exhaustive. Indeed, what is clear from what knowledge is available today, is that scholars in the field of the economics of education have been unable to respond satisfactorily to the problems raised by research. Indeed they have not found solutions that are effective, efficient, socially acceptable and economically viable. The limitations of the actual epistemological configuration of the

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economics of education therefore can be attributed to the theoretical foundations of this field of study and to its scholars, who have exclusively economic backgrounds.

This paper therefore aims to highlight the fact that the economics of education cannot be approached exclusively from a scientific point of view, nor from the perspective of educational science. That is unless the latter is considered in the context of pedagogy, in particular in relation to educational planning. Indeed, pedagogy must take on a role equal to that of economics since only then can the many dimensions of education, from the economic and financial to the social and human aspects be analyzed in different contexts, from school to work, indeed along an individual's entire life path.

2. Current Research Into the Economics of Education

From available research it emerges that the object of study of the economics of education are the many aspects of the interdependent relationship between education and economics. Such research is characterized by its exclusively economic origins. For example, there have been studies into the individual and social benefits of education and the economic aspects that tie educational institutions to the global economy (Morisi, 1989, 4177-4183); analysis of the impact of an economic system on the acquisition of knowledge of the individuals who operate in it, in the context of educational activities carried by nonprofit organizations (Prausello & Marengo, 1996:3); studies into the way in which choices are made relative to the "stock" of ability, knowledge and levels of understanding of the individual and the society as a whole and the demand for education and the resources available (schools, teachers etc) (Johnes, 2000:13).

This approach which regards primarily the "material" benefits that come from education and training has its origins in the classical version of the theory of human capital, which was formulated during the 1950s by classical economists from the School of Chicago, most notably T.W. Schultz, G. Becker and J. Mincer (Refrigeri 2011:381-389).

Even the educational interests of the international scientific community and those of international political institutions that fall into the category of economics of education are inspired by typically economic principles. Above all, they are dominated by the empirical verification of theoretical models that seek to establish a causal link between education and wages at an individual level and between education and development at a social level. Indeed, the basic common assumption that underpins this body of research is that education is an economic investment since it increases a person's productivity in addition to that of their employer and the society as a whole. Taking this and the theory of human capital into account, much can be taken from the research at micro, macro and meso levels.

Firstly in the area of research concerned with micro economics, the economics of education has focused on the benefits of education for the individual in terms of a person's future salary. The most recurrent questions both from theoretical and empirical points of view refer therefore to the "measurement" of the economic benefits, in terms of salary and of education. Even in recent years, studies have started to look into the impact on the human and social aspects of the individual. In particular current research in the field of the economics of education has focused on measuring the bearing of a person's education on their future salary. It has examined the whole working lives of individuals, not merely their levels of education and training and the employment opportunities available to them and their status in the world of work. Such research has been carried out through the empirical analysis of data concerned with long-term unemployment (Machin & Manning, 1999), and through a comparison of the individual costs of education and its benefits for success in the job market and the social benefits education can bring (Ciccone & Peri, 2002).

Secondly, research concerned with the impact of education on economics at a macro level has focused on the world of business. In particular it has examined the relationship between human resources and the organization and formation of human capital. It has focused on the assumption that investment in the education of human capital within a company is strategic, since the resulting productivity of a worker will be greater than the investment needed to provide the necessary training (Becker, 1993; Alvino, 2000). This research stems from an economic approach based on the principles of classical theory of human capital, which argues that greater levels of training of human

resources will result in greater productivity and performance in the market economy (Cedefop, 1998). Inherent within the science of business management is the idea that the education of a worker - understood as the training of human capital, both general and specialized, initial and continuous - brings benefits for the business itself. This is because the productivity of a worker within an organization is as high as the specialized training they have received, both directly within the company or outside (Barrett, 2001). In the world of business therefore, in addition to investment in physical capital, the professional training of the worker is as important and is considered a factor in the investment in the productive capacity of a company (Hanson & Johanson & Leitner, 2004). So much so that methods for the appraisal of human capital must now be budgeted for in a company's finances. Indeed the economic value of a company is defined in terms of the capacity of its human resources to generate income for the company and is on par with the company's physical capital, its investments and its material resources.

Thirdly, an area of research has concentrated on the macroeconomic nature of the benefits of education. Indeed there is a well established interest from scholars and academics but also governing institutions and world organizations such as the Organization for Economic Co-operation and Development (OECD, 2012; 2011) and the International Labour Office (ILO, 2012) in the impact of education and training on the determination of a country's GDP and its economic growth. Even in this case however, the underpinning assumption of this school of thought derives from classical theory of human capital, i.e. that a high level of education and training leads to greater economic development in society as a whole. Therefore, the subject area which is most debated in terms of theory and empirical research is the impact of human capital on the economic growth and general development of a country and the negative effects in terms of social cohesion and economic disparities in addition to disparities in the quality and quantity of education in any one country. In addition, this third area of research also encompasses studies into the correlation between the quality of systems of education and training, the economic investment in education, economic growth and the development of a country.

Therefore it is clear that research in the field of economics of education is underpinned by economic analysis (Refrigeri, 2006) and pays little attention to educational policies and proposed solutions to the problems of educational systems and to questions of education in general.

3. The Contribution of Pedagogy to Research In Economics of Education.

Areas of research within which the economics of education can be categorized argue that schooling, professional training and adult education are the most productive investments for the future of an individual, for the success of a company in the market economy and for the growth and development of an entire country. Although this is the underpinning assumption, research into the economics of education carried out to date leads to the conclusion that all that has been done in the fields of research into the individual, business systems, economic growth and the social development of individual countries is not sufficient to allow the economics of education to be awarded a prominent role amongst the educational sciences. This can be explained by the inability to formulate educational solutions that tackle the criticisms that research has highlighted and to identify the peculiarities of education systems that have been identified as the best in terms of production and educational performance. In essence, what is lacking is the contribution of pedagogy to the economics of education.

However, the analysis of this issue would not be complete without highlighting the fact that in recent years signs of the extension of this field of research have started to go beyond traditional economic confines. This move away from purely economic studies has been characterized by an interest in the benefits of education on individuals and society, not merely from an economic point of view. However, despite the fact that new studies stem from an acknowledgment of the need to enlarge the dimensions of research into individuals and their visions, they have still tended to focus on a need to quantify new findings. At the same time, it cannot be denied that the exploration of causal links between high levels of education, improvements in health and physical and social wellbeing, the adoption of self-protective behavior and lifestyles, a reduction in crime and improvements in levels of social cohesion have brought research into the economics of education closer to that of an educational science. However, although such research offers a more complete vision of man and society and the benefits that derive from education in general, they nonetheless lead us back again to economic benefits and returns, such as the reduction in the cost of

healthcare, justice and welfare in general (Refrigeri, 2011). Therefore despite the reduction of emphasis on economics the findings of studies still focus essentially on economic outcomes including the efficiency of training systems and the short and long term economic benefits of particular policies and offer less in terms of an analysis of human and social benefits. Nevertheless, this scientific enlargement cannot be considered satisfactory for the educational sciences, to which this field of research has become part, since the time has arrived for research to go beyond mere analysis of the benefits of education. It is necessary to not only contextualize the social, cultural and ethical aspects in addition to the cognitive, communicative, relational and sociological aspects but to consider such factors when proposing lines of intervention capable of addressing processes of change in educational systems if they should be considered ineffective in producing benefits to the individual, the companies and to the society as a whole.

This operation of enlargement and epistemological updating of the economics of education cannot pass merely as the individuation of new cognitive approaches, different from those here presented, but must be completed with the new purpose of the research, i.e. the creation, planning or revision of educational theoretical models and educational systems. This would allow new research to explore and interpret education following the principles of economics from the perspective of pedagogy, promoting at the same time the formulation of operative solutions to different educational problems that have emerged in society. Furthermore, such proposals could become a useful tool to allow political institutions to make decisions about the modification and reform of the general establishment of educational systems, or part thereof, with the aim of improving the living standards of individuals and the development of society, thus promoting greater wellbeing.

Therefore this paper argues that the economics of education will never be an effective social science unless its epistemological statute is grounded in the pedagogical aspects of educational planning. To illustrate this point, high levels of youth unemployment can be cited (ILO, 2012). From the numerous economic studies of this phenomenon it has emerged that one of the principle causes is the global economic crisis, but equally important is the relatively ineffective education of the youth of present generations. It has been revealed, to use the example of Italy, that the actual education system, in particular further education, does not facilitate the transition to the job market (Fondazione Agnelli 2012), and for this reason it is not effective. The identification of solutions to this problem must be tackled by the economics of education in the context of pedagogy. Specifically, what must be done, referring again to the Italian case, is to adapt the systems of scholastic and professional orientation and of work placement schemes with the aim of not only bringing young people closer to training or adults towards requalification in the context of the needs of the labour market. What must also be done is to maximize the potential of human capital in more general terms, rather than in over-specialized terms, which at least in this phase, has a reduced focus on economic gain (Refrigeri, 2010; 2012). Young people therefore must be allowed to bridge the gap from education to employment through formal education programmes at school and university and through non formal education such as work experience.

Current tools for training at work are in first place the apprenticeship, but also the more traditional curricular training and work placements in industry. Even if they are provided for by appropriate legislation that regulates their role, they are not realized and carried out in the most effective way. This is because they are not planned in respect to the needs of companies. Indeed, the latter only find such programmes useful if they represent a potential investment in the human capital of human resources. If they do not, the programmes represent merely a cost the company cannot afford. Therefore even if it is only with the aim of starting a more complex dialogue, the use of apprenticeships and work placement as tools for orientation and training can represent an opportunity for a young person to enter the world of work and put themselves to the test, orientate their professional choices and acquire experience. At the same time, it gives the employer the opportunity to invest in potential human resources that can be trained in accordance with their requirements. Such schemes must be well planned, monitored and evaluated by professionals in education and managed by tutors from companies that are qualified to take on such roles. In this way they will no longer serve as a simple legal obligation.

4. Conclusion

The aim of the field of the economics of education should be to contribute knowledge which addresses the numerous social and educational questions inherent in society while at the same time exploring the correlation between economics and pedagogy. To achieve this it is necessary at an international level to work to audit and systematize the relationships that currently exist and to contribute new insights to educational and economic issues. Indeed, it is necessary that the epistemology that underpins this school of thought takes into account data relative to the wider benefits of education and to formulate and inform planning models for educational systems.

In order to be recognized as an integrated area of research, the economics of education must confer to pedagogy the role of helping scholars to create formative solutions to the criticisms revealed through economic investigations. Indeed, within the role pedagogy can adopt, the part played by educational planning and the development of the different dimensions of the individual (economic, financial, social and human) must be recognized. Without this the eventual formative solutions will not allow for the construction of a democratic society where wellbeing means respect for others, solidarity, tolerance, social cohesion, social integration and interaction. These qualities are not spontaneous but the result of intentional action and education, in the same way that economic growth is not spontaneous. What is missing is a strong union between the revelation of problems within economic and social systems and the formulation of potential solutions.

The economics of education should therefore be defined in a more complete way. The study of both the benefits and individual and social costs of education and training in addition to the economic and human aspects that link educational institutions to the global and social economy will allow scholars to propose educational solutions that are effective and socially workable.

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